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# CENTRAL AFRICAN ECONOMIC AND MONETARY COMMUNITY

September 2016

### **SELECTED ISSUES**

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# CENTRAL AFRICAN ECONOMIC AND MONETARY COMMUNITY (CEMAC)

#### **SELECTED ISSUES**

June 28, 2016

Approved By
The African
Department

Prepared by Vincent Fleuriet, Jose Gijon, Gabriel Leost, Koffie Nassar, Du Prince Tchakoté, Marie-Christine Uguen, and Jean van Houtte. Team led by Mario de Zamaróczy. Research support by Azanaw Mengistu and Ashan Rodriguez. Administrative support by Light Koulefianou and Jean Vibar.

# **CONTENTS**

CE	MAC—RESERVES MANAGEMENT	4
	Introduction	
	Developments in International Reserves	
	Reserve Adequacy Considerations	
	Recommendations for Pooled Reserve Management	
	Securing Appropriate Resources to Back Reserves	
	A revised Investment Strategy	
FIC	GURES	
1.	Oil Production, 1980–2030	5
2.	BEAC: Gross International Reserves, 2000–15	5
3.	Member States' Reserves at the BEAC, 2007–15	6
	International Reserves Assets Imports Cover, 2000–21	
Re	ferences	12
CE	MAC—DEBT SUSTAINABILITY ANALYSIS	13
	Introduction	
В.	Background	13
C.	Assumptions	16
	External Debt Sustainability	
	Conclusions	

BC	DXES	
1.	Macroeconomic Assumptions for the Baseline Scenario	18
2.	Customized Stress Test on the Ratio of External Debt Over GDP	20
3.	Debt Management Processes and Objectives	21
FI	GURES	
1.	External Debt by Country, 2014	14
	External Debt by Creditor, 2014	
	External Debt by Country and Creditor, 2014	
	External Debt, 2014–20	16
	Indicators of Public and Publicly Guaranteed External Debt under	
	Alternatives Scenarios, 2015–35	19
T/	ABLES	
	External Debt Sustainability Framework, Baseline Scenario, 2012–35	23
	Sensitivity Analysis for Key Indicators of Public and	23
20	Publicly Graranteed External Debt, 2015–35	24
2h	b. Sensitivity Analysis for Key Indicators of Public and	2
21.	Publicly Guaranteed External Debt, 2015–35	25
	EMAC—INSTITUTIONS AND MEDIUM-TERM FISCAL FRAMEWORK	
	Institutional Setup	
_	Macroeconomic Policy Coordination	
C.		
D.	<i>y y</i>	
Ε.	Making Fiscal Policy More Countercyclical	
F.	Adopting Adjusted (Structural) Budget-Balance Rules	
G.	<u> </u>	
Н.	11 3	
I.	Concluding Remarks	37
FI	GURES	
1.	International Reserves, 2010–16	30
	Illustration of General Government Debt, 2015–20	
T/	ABLES	
	Fiscal Benchmarks for Mutilateral Surveillance, 2001–16	29
	Basic Balance	
3.	Public Debt, 2010–16	
	Oil Sector Indicators, 2014	
	Cyclical Correlation of Real Government Spending and Real GDP, 1990–2015	
	Simulation Assumptions, 2016–20	
	1 ' -	

Αľ	NNEXES	
I.	Properties of Different Types of Fiscal Rules	38
II.	Escape Clauses—Country Examples	39
Re	eferences	40
CE	EMAC— IMPLEMENTATION OF THE HARMONIZED PUBLIC FINANCIAL FRAMEWORK_	_ 41
	Introduction	
	Status of the Transposition of the Directives	
	Difficulties Transposing the Directives	
	Implementation of the Reforms Initiated by the Directives	
E.	Recommendations for Expediting the Transposition of the Directives	47
	GURES	
	Architecture of the Public Financial Management Framework	
	CEMAC: Transposition of the Six Directives, May 2016	
	WAEMU: Transposition of the Six Directives, May 2016	
4.	Transposition Directives: Status at end-May 2016	45
T/	ABLE	
1.	Implementation of the Reforms Called for in the Directives on	
th	e Harmonized Public Financial Framework	48
	MAC— DEVELOPMENTS IN THE PUBLIC SECURITIES MARKET	
A.	Background	49
	Securities Market Developments	
	Risk Premium Hierarchy and Potential Market Mispricing	
D.	Challenges for the Development of the CEMAC Public Securities Market	53
FI	GURES	
1.	Public Securities, 2011–15	50
	Weighted Average Interest Rates of 3-Month and 6-Month T-Bill Issuances, 2011–15	
	Average Interest Rate on 6-Month Treasury Bill Issuances, 2014–15	
	CEMAC and WAEMU: Stock of Public Securities, 2001–15	
	CEMAC and WAEMU: Treasury Bill Issuances, 2015	
6.	CEMAC and WAEMU: Auction Strategy (Choice of Cut-Off Rate)	56
	NNEXES	
	Treasury Bill Issuances, 2011–15	59
II.	Interest Rates on Treasury Bills, 2011–15	60
Re	eferences	61

# **CEMAC—RESERVES MANAGEMENT**

This paper assesses the appropriate level of international reserves for the Economic and Monetary community of Central Africa (CEMAC) and reviews the impact of the current oil-price slump. Standard approaches to reserve adequacy recommend a reserve coverage of five months of prospective imports for a commodity-dependent monetary union. Under the current outlook for oil prices, prospects for maintaining reserve coverage at this level are challenging. Against this background, the paper offers proposals to reform the CEMAC's reserve management framework.<sup>1</sup>

#### A. Introduction

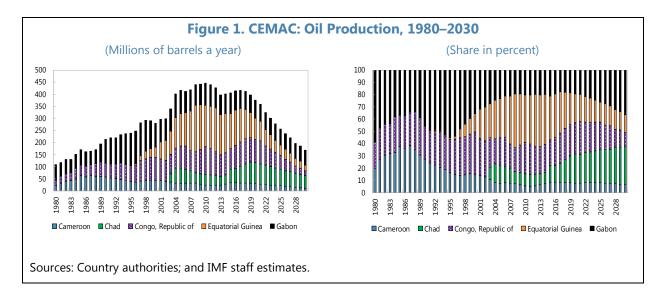
1. This paper seeks to identify both short- and medium-term measures to strengthen CEMAC's reserve management arrangements. It first discusses reserves adequacy for CEMAC and reviews foreign currency asset accumulation by its member states. It then assesses the implications of the new economic environment and, building on previous IMF advice, proposes a new reserve management framework.

#### **B.** Developments in International Reserves

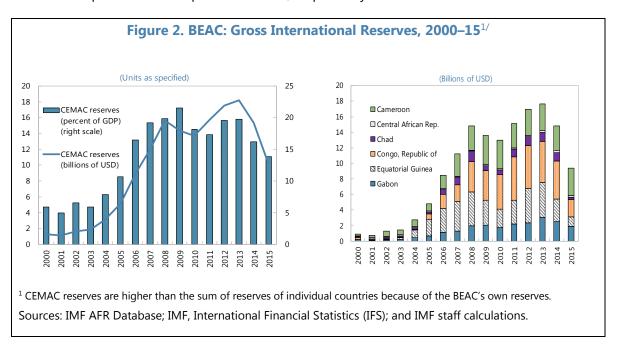
2. **CEMAC relies heavily on oil.** It is the Community's main export commodity—at the onset of the oil-price slump in mid-2014, the oil sector represented 29 percent of the regional GDP; 79 percent of regional exports; and 54 percent of regional government revenue. Foreign exchange earnings are strongly linked to oil-sector developments. Four of CEMAC's member countries are large oil exporters (Equatorial Guinea, Republic of Congo, Gabon, and Chad, in declining order of share of oil exports in total exports); one is a small net oil exporter (Cameroon); and the last one (CAR) is an oil importer. Some of the salient features of CEMAC's and its member countries' external sector are summarized in Figure 1 and Text Table 1.

		(P	Percent of GDP	")		
	Country GDP/CEMAC's GDP	Country oil GDP/CEMAC's GDP	Country oil GDP/Country GDP	Country oil exports /country merchandise exports	Country fiscal oil revenue/ country fiscal revenue	Country external trade balance/ country GDP
Cameroon	38.7	1.8	4.7	38.5	14.1	-3.8
Central African Republic		0.0	0.0	0.0	0.0	-3.8 -22.3
Chad	14.8	3.0	20.0	78.0	34.5	-15.5
Congo, Republic of	12.2	4.9	40.5	74.4	37.8	-14.6
Equatorial Guinea	12.8	3.8	30.0	81.4	81.6	41.7
Gabon	19.4	6.2	31.8	76.5	33.6	5.5
CEMAC	100.0	19.6	19.6	70.6	39.0	2.1

<sup>&</sup>lt;sup>1</sup> Prepared by Vincent Fleuriet and Jose Gijon.

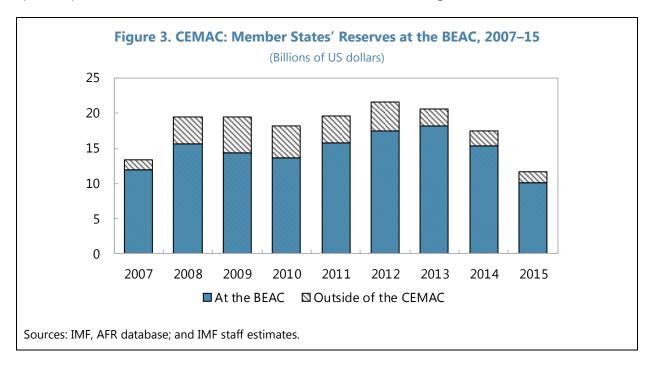


3. Until mid-2014, the regional central bank (BEAC) accumulated substantial international reserves. Reserves grew from US\$1.1 billion (8 percent of total CEMAC GDP) in 2001 to US\$15.3 billion (16 percent of total CEMAC GDP) in 2014 (Figure 2). This development mirrored the surge in oil export receipts, mostly from the Republic of Congo and Equatorial Guinea, whose shares in the BEAC's total international reserves grew from 6.4 percent and 6.6 percent in 2001 to 32.2 percent and 18.9 percent in 2014, respectively. This stemmed mainly from the surge in international oil prices, but also from rising oil production. Meanwhile, the imputed contributions of Cameroon and the CAR to the BEAC's international reserves fell from 30.8 percent and 11.0 percent in 2001 to 20.6 percent and 1.7 percent in 2014, respectively.



4. The BEAC's reserves have declined significantly following the oil-price shock. With substantially lower foreign exchange proceeds in the wake of the oil-price slump since mid-2014, reserve coverage declined to 4.6 months by end-2015.

5. An important share of the BEAC's foreign currency assets has been held by some member states outside CEMAC. Partial compliance with the BEAC's reserve pooling requirement has thus been undermined, particularly by some of the of the largest oil exporters. It was estimated, based on indirect methods, that foreign currency assets held outside CEMAC may have represented up to 14 percent of the BEAC's international reserves at end-2015 (Figure 3).<sup>2</sup>



# 6. The reluctance of some member states to surrender all their foreign currency assets may be motivated by a number of considerations, including

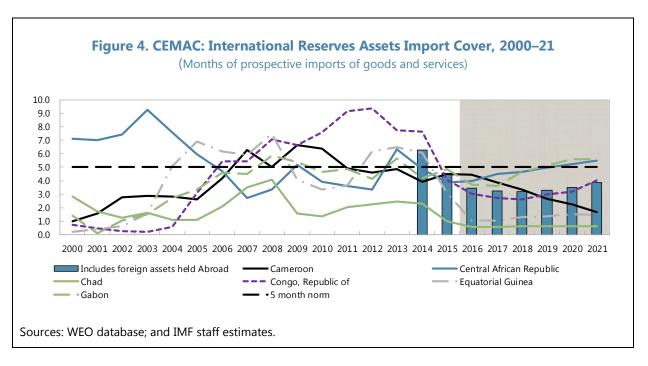
- a desire to retain full ownership and control;
- a desire to earn higher returns on foreign currency assets than those paid on deposits at the BEAC;
- concerns about safeguards risks; and
- requests by some development partners to hold counterpart funds for investment projects they finance.

-

 $<sup>^2</sup>$  Based on data from the Bank for International Settlements (BIS) on overseas deposits by CEMAC's non-banking sector.

#### **C.** Reserve Adequacy Considerations

**7. Reserve projections point to immediate challenges.** Using June WEO 2016 oil-price assumptions,<sup>3</sup> the BEAC's international reserves are forecast to decline from US\$10.1 billion atend 2015 (excluding non-repatriated assets) to US\$7.9 billion at end-2016 (3.4 months of prospective imports), as a result of widening current account deficits for the region's net oil exporters (Figure 4). In the medium-term, reserves would increase moderately to US\$ 9.6 billion by 2021, in line with oil-price and production projections, but reserve coverage would still be below 4 months of prospective imports. In the event of lower-than-projected oil prices, CEMAC's external sustainability could be under stress.



8. Against this background, international reserves covering five months of regional prospective imports could be considered as the desirable ("target") objective for CEMAC, a resource-rich currency union. This recommendation is based on the assessment made by IMF staff in the context of the 2016 regional consultation with CEMAC (see companion staff report). A five-month threshold was also considered appropriate by an *ad hoc* working group, set up by the BEAC in August 2012. The working group assessed the desirable reserve adequacy as the level required to cover both five months of CEMAC imports and the following year's public external debt service. The working group considered that this dual benchmark was broadly met at end-2011.

<sup>&</sup>lt;sup>3</sup> The projections are based on an average oil price of US\$44 per barrel in 2016, recovering to an average of US\$55 per barrel by 2021.

<sup>&</sup>lt;sup>4</sup> The five-month import cover corresponds to an intermediate benchmark among three considered by the working group. This benchmark takes account of the strong volatility in foreign currency assets in CEMAC. (*Comité Mixte sur le Rapatriement des Avoirs en Devises des États Membres de la CEMAC*, August 2012).

<sup>&</sup>lt;sup>5</sup> It continued to be met until end-2015.

- 9. Under current assumptions, the BEAC's foreign assets are not expected to reach the target objective of five months imports in the medium term. Depending on the possible repatriation of foreign currency assets currently held abroad, the margin below the objective would stretch from narrow to wide. On this basis, it does seem appropriate to focus on ensuring the target level of reserve coverage.
- 10. Some member states' non-compliance with reserves pooling is a potential source of external instability. As noted earlier, some member states are not fully compliant with the foreign exchange assets surrender requirement. This practice may be sustainable when the price of oil exceeds US\$100 a barrel and the consolidated union budget is close to balance, but it has turned into a major challenge since the oil-price slump. Indeed, CEMAC's reserves would fall significantly short of what would be needed to defend the CFA franc's exchange rate peg credibility if adverse assumptions materialized.

### D. Recommendations for Pooled Reserve Management

- **11.** The management of the BEAC's international reserves is governed by the monetary cooperation agreements with France. It involves four principles: (i) the French Treasury's guarantee of free convertibility of CFA francs issued by the BEAC; (ii) the fixed parity with the euro; (iii) the lack of restrictions on transfers; and (iv) the pooling of international reserves at the BEAC, 50 percent of which are required to be held in the *Operations Account* opened for the BEAC at the French Treasury.<sup>6</sup>
- **12.** In view of current risks, the BEAC should define its target level of international reserves. In 2015, it already proposed several calibrations of the desirable level of international reserves. The approach was developed in line with international standards and the calibration criteria considered were the coverage in terms of number of months of imports and the coverage of the stock of external short-term debt. Three coverage levels were considered, but actual international reserves complied only with the lowest level—which the BEAC considers insufficient.
- *Maximum risk coverage*—covering six months of prospective goods and services imports and 250 percent of the public external debt service.
- *Intermediate risk coverage*—covering five months of prospective goods and services imports and 200 percent of the public external debt service.
- *Minimum risk coverage*—covering three months of prospective goods and services imports and 100 percent of the public external debt service.
- 13. The institutional framework for reserve management should provide for the achievement of the target level. It could rely on the following rules:

<sup>&</sup>lt;sup>6</sup> The Convention for the *Operations Account* of October 3, 2014 provides that the BEAC must deposit on average over ten days 50 percent of its international reserves to that account, with a minimum of 40 percent. The 50 percent are calculated on the total of international reserves excluding SDRs, and long-term investment resources constituted by the *Fonds de Réserve pour les Générations Futures*.

- Purpose—to constitute international reserves dedicated to support the peg and external stability.
- Ownership and oversight—the BEAC is the owner and exclusive manager of international reserves.
- Management—international reserves are either invested in the BEAC's Operations Account at the
  French Treasury or managed by the BEAC with the objectives of maintaining capital preservation,
  appropriate liquidity, and adequate return.
- Foreign assets surrender requirement—the BEAC must be able to verify compliance with the
  requirement and take corrective action if necessary, in particular when the regional external
  position is weak. The corrective action should bring the nonobservant country(ies) back into
  compliance.
- 14. The BEAC should have a framework that reflects fairly each member state's contribution to the pooled reserves. It should be based on two principles: (i) the need for each member state to contribute its fair share to the regional reserves pool; and (ii) the requirement for other member states to step in, if a member state fails to meet its required contribution (principle of "solidarity"). If a member state cannot contribute for good reasons (i.e., not enough foreign assets), appropriate mechanisms should be developed to recognize the implicit liability of this member state to pooled reserves. This liability should be reflected in BEAC's balance sheet as debt owed to the bank. Once CEMAC reaches the target level of international reserves, excess contributors should be rewarded by providing higher returns. The BEAC should envisage a mechanism for the management of pooled reserves to make them financially attractive and thus reduce the incentive of noncompliance with the surrender requirement.
- 15. The enforcement of the surrender requirement should be based on a finding of non-compliance even if the target level is achieved. This enforcement should be based on objective and easy to monitor indicators. For legitimacy purposes, a declaration of non-compliance should be the result of a decision by a majority of member states (or a similar rule). Enforcement of the rule should be firm to promote compliance. The severity of the remedial action should depend on the extent of the harm caused by the non-compliance and the extent to which non-compliance is deemed to be voluntary.

# **E.** Securing Appropriate Resources to Back Reserves

16. The BEAC's international reserves mainly stem from the surrender of foreign assets generated by oil exports, received from governments. In exchange for depositing their foreign exchange earnings, member states receive CFA francs, which are recorded as liabilities in the BEAC's balance sheet, and as assets in member states' balance sheets. Designing a framework, which can guarantee a sufficient level of stable resources to back international reserves, requires analyzing the rules governing the management of the member states' accounts in domestic currency at the BEAC. Currently, these accounts are ring-fenced and are managed separately, under the guidance of the respective member states; a member state hit by a revenue shock can draw on its account at any time, without specific restrictions or rules.

- **17. To support the stability of international reserves, the latter need to be backed by long-term resources.** Reserves stability can only be achieved if the BEAC's long-term liabilities and equity are equivalent to the target level of international reserves. This a necessary—albeit not sufficient—condition, because an appropriate monetary policy should also avoid creating too much liquidity, which can lead to an increase in demand for foreign exchange. In the BEAC's balance sheet, currency in circulation (billets et pièces en circulation), equity (fonds propres—capital et fonds de dotation, résultat and réserves) and SRD allocations (allocation de DTS) may be considered as adequate long-term resources for this purpose. At end–March 2016, these three booking entries amounted to CFAF 3,400 billion, slightly less than two-thirds of the BEAC's total reserves.
- **18.** To ensure the desired stable backing of international reserves, part of member states' deposits should be transformed into long-term resources. This would enable the BEAC to fill the gap between the current amount of stable resources and the target level of reserves. Specifically, this would mean that a portion of member states' deposits should be transformed into long-term resources (e.g., blocked deposits or incorporated into equity). In the short term, this may prove challenging for member states.
- 19. For reserves above the target level ("excess reserves"), there is no need for long-term resource backing. On the contrary, a more flexible scheme, potentially similar to the framework currently applied to member states' deposits, could be envisaged. Excess reserves should receive higher remuneration than required reserves to make them financially attractive to promote full compliance with reserves surrender.

### F. A Revised Investment Strategy

- **20.** The BEAC's current investment strategy has shown its limitations in the context of declining reserves. The BEAC created a *held to maturity* portfolio, when the size of reserves was growing. However, in a context of declining reserves, such a portfolio cannot easily provide sufficient liquidities when required. Indeed, the BEAC had to sell parts of its investment portfolio in 2015 to comply with its obligation to deposit 50 percent of its foreign assets in the *Operations Account*. Moreover, this type of portfolio represents a significant opportunity cost, as the assets cannot be sold (except in the case of sales) to replenish the Operations Account to realize marked-to-market profits; and the BEAC still holds a large amount of securities with a negative yield-to-maturity.
- 21. Against this background, the ministerial committee of the Monetary Union of Central Africa (UMAC) should endorse the target level of international reserves and adopt an appropriate investment strategy for them. Ministerial endorsement is important to provide political support to the target level. This strategy should buttress the CFA franc's peg. To this end, the BEAC should ensure that the general principles of security, liquidity, and returns on assets are properly integrated into the investment strategy. The strategy should ensure at all times the

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<sup>&</sup>lt;sup>7</sup> When the BEAC injects liquidity into CEMAC economies (directly to governments or via banks), beneficiaries may use these liquidities to buy foreign exchange from the BEAC, thereby putting downward pressure on reserves. At end—March 2016, member states had CFAF 1.6 billion in their accounts at the BEAC that could be used to buy foreign exchange. Therefore, an appropriate liquidity management is critical to avoid unnecessary pressure on international reserves.

availability of liquid reserves up to the target level. The strategy could involve a three-tier framework in order of diminishing liquidity:

- Operations Account—mandatory amount deposited at the French Treasury for everyday transactions.
- Liquidity account—used to meet all immediate cash flow requirements and avoid using the Operations Account when its deposits are just at the mandatory level of 50 percent of total international reserves.
- Investment account—excess reserves above the target level, used to meet less probable cash flow
  requirements and provide a higher return. Indeed, excess reserves could be managed with a
  higher return objective, at the cost of lesser liquidity and higher risk.

The three-tier structure should include a mechanism to guarantee the automatic replenishment of a more liquid account with resources from a less liquid account, consistent with the hierarchy of accounts.

- 22. In light of the above, the BEAC has prepared a draft proposal for a new reserve management policy. It includes three portfolios: (i) a monetary portfolio including, the Operations Account, demand accounts, and term accounts with correspondents; (ii) a trading portfolio to serve as a supplementary source of liquidity to cover immediate liquidity needs; and (iii) and investment portfolio for higher returns in exchange of lesser liquidity. The investment portfolio would be managed "passively" and consist mainly of securities held to maturity. The BEAC could use this revised strategic asset allocation framework to fulfill its policy objectives. The size of the monetary and trading portfolios should always be at least equal to the target level of reserves. The investment portfolio, which is not a liquid portfolio, should not be considered part of the international reserves available for immediate mobilization, and therefore not accounted in the target level of international reserves. This portfolio should only hold excess reserves. It should be equipped with a transfer mechanism to replenish liquid reserves, should they fall below the target level. The reserve portfolio should be benchmarked against objectives in terms of market, exchange, liquidity, and credit risks. The BEAC has already adopted strict rules for risk management and appropriate portfolio monitoring tools required to implement benchmarked portfolio management. These should prove to be useful when the new reserve management strategy is put in place.
- **23. Existing constraints in the BEAC's trading room hamper reserve management reform efforts.** In a context of declining reserves, the BEAC should reinstate full reserve management capacities to its trading room to ensure that international reserves are managed more dynamically to meet liquidity needs. Given that best practices do not recommend immobilizing a substantial portion of international reserves in an investment portfolio, direct and active management by the trading room is particularly important. More active reserve management would help increase the liquidity of investments and reduce the risk that forced sales of international reserves result in unnecessary losses. The BEAC should rely on its operational rules and procedures to supervise the management of reserves.

# References

International Monetary Fund, Assessing Reserves Adequacy, IMF Policy Paper, February 2011.
, Assessing Reserves Adequacy—Specific Proposals, IMF Policy Paper, April 2015.
, Central African Economic and Monetary Community (CEMAC) Financial System Stability Assessment, April 2016.
Dabla-Norris, E., J. I. Kim, and K. Shorono, "Optimal Precautionary Reserves for Low-Income Countries: A Cost-Benefits Analysis, IMF Working Paper 11/249, 2011.

### CEMAC—DEBT SUSTAINABILITY ANALYSIS

The risk of external debt distress for the Economic and Monetary Community of Central Africa (CEMAC), as a whole, is moderate, despite a steady increase in the debt burden. None of the policy-dependent thresholds is breached under the baseline scenario. However, all five thresholds are breached under at least one of the standard stress tests, which points to risks to macroeconomic stability. CEMAC should implement an active and effective region-wide risk management framework for external debt sustainability.<sup>1</sup>

#### A. Introduction

1. This external debt sustainability analysis (DSA) is the first such attempt for CEMAC. Typically DSAs are conducted at the country level, not at the community level.<sup>2</sup> However, because in CEMAC reserves are pooled and falling, it seems important to assess debt sustainability at the community level. Because there is no agreed regional DSA template, this analysis uses the standard, dynamic, low-income country (LIC) template. For aggregation purposes, it assumes that all CEMAC countries are LICs and have weak macro-financial management capacity.<sup>3</sup> The DSA uses the macroeconomic framework that closely tracks the companion 2016 regional consultation report, which itself aggregates the frameworks of the six member countries. The assessment is based on actual data at end-2014 for external debt of all six central governments, plus implicitly or explicitly quaranteed external debt of public enterprises for Cameroon.<sup>4</sup>

# **B.** Background

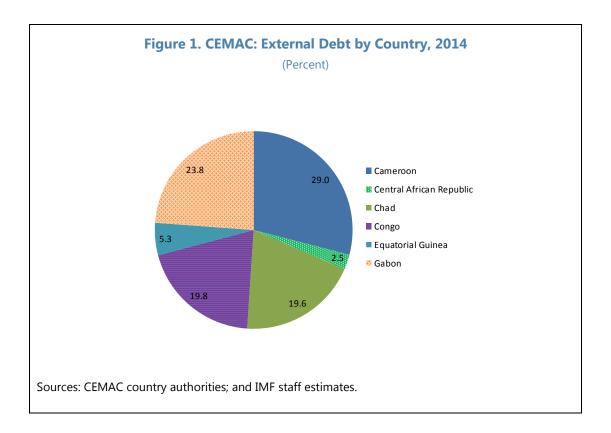
2. The overall external debt burden of CEMAC at end-2014 was US\$19.3 billion, equivalent to 20.5 percent of regional GDP. The dominant share of this debt was owed by Cameroon, which accounted for almost 30 percent of total regional external debt, while Gabon accounted for almost a quarter. Chad and Congo each claimed a fifth of the total, while the Central African Republic and Equatorial Guinea accounted together for less than a tenth of the total (Figure 1).

<sup>&</sup>lt;sup>1</sup> Prepared by Jean van Houtte and Du Prince Tchakoté.

<sup>&</sup>lt;sup>2</sup> This regional debt assessment is an analytical exercise, not a formal World Bank/IMF sanctioned DSA.

<sup>&</sup>lt;sup>3</sup> Four countries of CEMAC's six members are in this category.

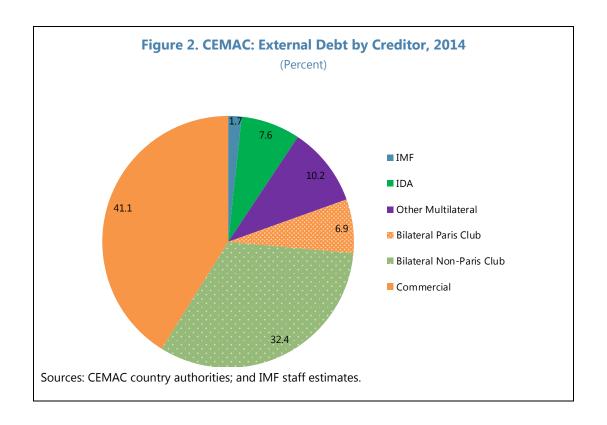
<sup>&</sup>lt;sup>4</sup> External debt is defined as debt owed to non-residents and issued in a foreign currency. Overdue payment obligations due to external suppliers and not paid by the standard 90-day settlement period are considered external debt. Cameroon's guarantied liabilities were CFAF 527 billion at end-2014. Similar data are not available for the other countries.

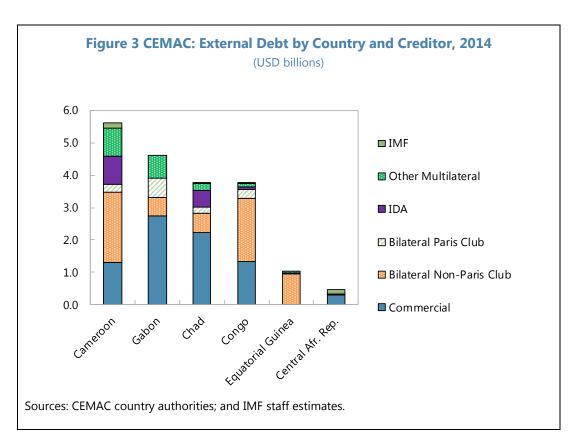


- **3. CEMAC's external debt has significantly risen in the wake of debt relief.** The regional level of external debt contrasts markedly with the level that prevailed for the three countries, which benefited from debt relief under the Highly Indebted Poor Countries (HIPC) Initiative and the Multilateral Debt Relief Initiative (MDRI) a decade ago. Upon reaching their respective "completion points," these countries saw their external debt burden fall below 6 percent of GDP. Since then, CEMAC's external debt has increased more than threefold to exceed 20 percent of GDP.
- 4. The composition of external debt exhibits dominant trends. External commercial debt was the largest category, followed by debt to non-Paris Club countries.<sup>6</sup> Commercial debt, the most onerous category of debt, accounted for about 40 percent of CEMAC's external debt. Cameroon, Gabon, and Chad held the largest external commercial liabilities, which together accounted for a third of all external debt. The importance of bilateral debt from non-Paris Club countries, representing a third of all external debt, highlights the rapid rise of China among CEMAC creditors (Figures 2–3). Concessionality (i.e., a 35 percent grant element) represents a declining portion of overall debt.

<sup>&</sup>lt;sup>5</sup> The early HIPC Initiative countries are Cameroon, Central African Republic, and Congo. Gabon benefited from a Paris Club debt rescheduling in 2000 and Chad reached its completion point under the HIPC Initiative in 2015.

<sup>&</sup>lt;sup>6</sup> External commercial debt includes large outstanding payment obligations—as defined in footnote 4—for Cameroon (public enterprises), Congo, and Chad. External commercial debt includes Eurobond issues by Gabon before end-2014.

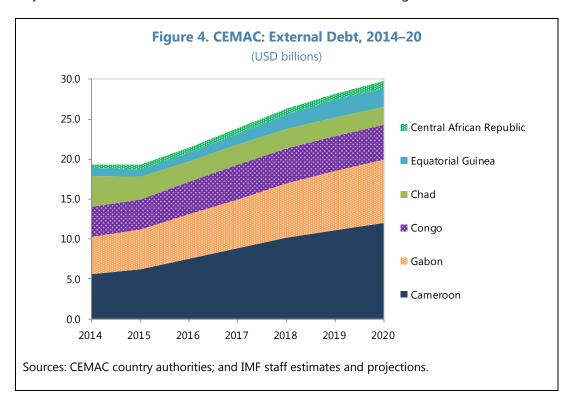




#### C. Assumptions

#### The following assumptions are used for the projection period 2015–35.

Assumptions on the level and composition of external borrowing are similar to those used in the
latest individual medium-term country frameworks, and are the main drivers for external debt in
the medium term (Figure 4). Actual external debt developments in 2015, such as the Eurobond
issues by Gabon and Cameroon, have been reflected in the modeling of new debt.



- Assumptions on the *financing terms* draw on the latest available contract information from bilateral and commercial financiers, bond issuance documents, and multilateral lenders (Text Table 1). Specific sets of financing terms are used for each main creditor type. The discount rate is 5 percent, as mandated by the IMF and World Bank Executive Boards in October 2013. The financing terms in this regional DSA are applied equally to all CEMAC countries. Although they are close to the financing terms used in individual countries' DSAs, there may be slight differences with actual country-specific terms; this may result in marginally different country profiles for amortization, external debt stock, and debt service in the outer years.
- The *macroeconomic* assumptions reflect the impacts of low oil prices and security threats (Box 1). In the medium term, growth is projected at 3.5 percent a year, while revenue dips by about a fifth from the average 2014–15 level, in line with export projections. The medium term is challenging, as shrinking public resources compromise governments' ability to contribute essential public services to growth. In the long term, prospects improve, as oil prices rebound, economies diversify and generate new types of exports, and government revenues recover.

**Text Table 1. CEMAC: External Financing Terms, 2015–35** (Units as specified)

	Discount	Interest	Grace	Loan	Grant
	rate	rate	period	Maturity	Element
	(percent)	(percent)	(percent)	(percent)	(percent)
IMF	5.0	0.8	5.0	10.0	28.3
IDA - Small Island Country	5.0	0.8	10.0	38.0	62.2
IDA - Regular	5.0	0.8	10.0	25.0	57.4
Others Multilateral	5.0	1.5	3.0		34.2
PC Donor 1	5.0	3.0	7.0	20.0	20.2
PC Donor 2	5.0	3.0	7.0	20.0	20.2
Others paris Club	5.0	3.0	7.0	25.0	22.2
Non-PC Donor 1	5.0	2.0	5.0	25.0	31.2
Non-PC Donor 2	5.0	2.0	5.0	20.0	28
China	5.0	4.00	5.0	25.0	11.2
Commercial Lender	5.0	7.0	1.0	10.0	-7.3
BOND	5.0	10.0	7.0	10.0	-32.3
Other Commercial Lenders	5.0	7.0	1.0	10.0	-7.3

Sources: CEMAC country authorities; and IMF staff estimates and projections.

5. The regional debt management capacity is deemed to be weak. As a result, corresponding standard policy-dependent thresholds are used to judge external debt sustainability. Specifically, thresholds are set at 30 percent for the ratio of the present value (PV) of external debt over GDP; 100 percent for the PV of external debt over exports; and 200 percent for the PV of external debt over revenue. As regards "flow" indicators, the threshold for the ratio of debt service over exports is 15 percent; and that for the ratio of debt service over revenue is 18 percent. Cameroon typically does well in managing its debt service. Other countries have occasionally struggled with their accounting of debt service liabilities, in part because of severe capacity constraints.

# D. External Debt Sustainability

6. CEMAC is estimated to be at a moderate risk of external debt distress. There are no instances in which projections under the baseline scenario breach the policy-dependent thresholds for LICs (Figure 5). However, CEMAC's external debt position is vulnerable. Indeed, each of the five indicators used to track the risk of debt distress includes at least one standard stress test, which breaches the aforementioned thresholds. An additional customized stress test, which tracks the CEMAC convergence criterion on debt (i.e., debt/GDP), also yields results that warrant close scrutiny of the evolution of external debt (Box 2). Moreover, the baseline scenario for the PV of debt over exports trends in a manner that is a cause for concern: it increases rapidly in the near term and remains high in the medium-to-long term.

#### **Box 1. CEMAC: Macroeconomic Assumptions for the Baseline Scenario**

#### Medium Term, 2016-20

Real GDP growth is projected to average of 3.5 percent in the medium term, supported by a recovering domestic demand and public investment. Annual inflation is projected to remain low, at about 2 percent, in line with historical trends and below the CEMAC convergence criterion.

The revenue-to-GDP ratio is projected to decline in the medium term, from an average of 23.6 percent of GDP in 2014–15 to 18.7 percent of GDP in 2016–20. Oil prices are expected to stabilize at about US\$50 per barrel in the medium term. New and more expensive technology to increase aging well production, and limited new green-field investments, will have a dampening effect on oil revenue.

The external current account deficit is projected to peak at almost 9 percent of GDP in 2016, and gradually narrow to under 4 percent of GDP by 2020, as the region adjusts to the terms-of-trade shock of 2014–15. This reflects falling volumes of oil exports and a decline in imported equipment goods for infrastructure projects, as oil exploration and investment remains low and public investment programs slow down. Despite robust volume growth, non-oil commodity export proceeds are expected to be held back by low prices. The current account deficit is expected to be financed largely through external public borrowing.

#### Long Term, 2021-35

Real GDP growth is projected to increase, and average almost 4 percent in the long term.

The revenue-to-GDP ratio is projected to stabilize at about 21 percent of GDP in the long term. This trend assumes a decline in oil revenue with the gradual depletion of oil reserves, and an increase in non-oil revenue with improved revenue collection.

The external current account deficit is projected to narrow and average about 1.3 percent of GDP in 2021–35. Exports of goods are projected to grow in the long term, as a result of increases in volume and prices of non-oil exports and exports of services. Conversely, the growth in imports is slower, in line with the lower public investment.

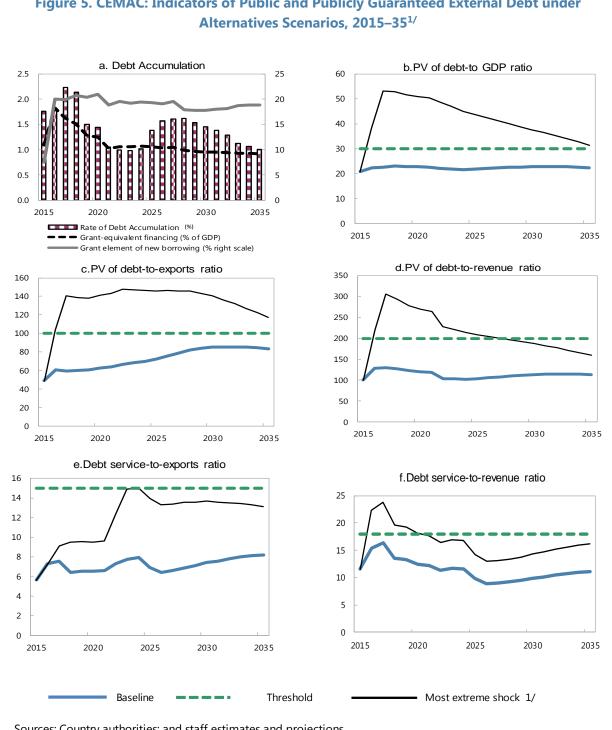


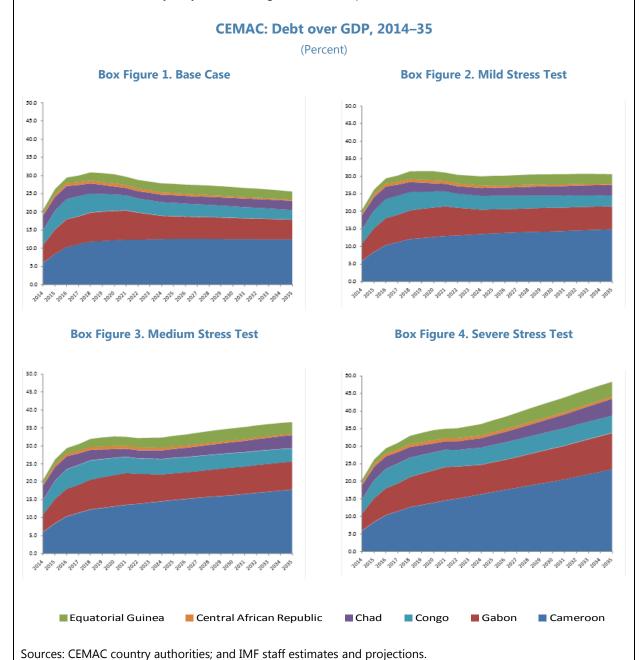
Figure 5. CEMAC: Indicators of Public and Publicly Guaranteed External Debt under

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2025. In figure b. it corresponds to a shock on net non debt-creating flows; in c. to a shock on net non debt-creating flows; in d. to a shock on net non debt-creating flows; in e. to a shock on net non debt-creating flows; and in figure f. to a one-time depreciation shock.

#### Box 2. CEMAC: Customized Stress Test on the Ratio of External Debt Over GDP

Growth is critical to keep the external debt burden sustainable. A customized stress test on the main CEMAC surveillance criterion on debt (the ratio of debt over GDP) shows the importance of sustaining robust growth. The test, which deals with external debt only, is applied to real GDP growth, which in the base case (no stress) growth, decreases gradually from 4.4 percent to 4 percent annually in the long run (Box Figure 1). In each of the next three figures, real GDP grows by one percentage point less than in the previous figure. The severe stress test (Box Figure 4) shows how slow growth causes external debt to increase rapidly, relative to the size of the economy, as years of slow growth are compounded.



- 7. CEMAC countries' complementary debt profiles result in an aggregate regional risk of external debt distress that is moderate. Whereas the DSA for Cameroon shows that the ratio of the PV of external debt over exports breaches its policy-dependent threshold, thus putting Cameroon at high risk of debt distress, the same indicator for CEMAC remains well below its threshold. In this case, the high path of external debt accumulation of Cameroon is offset by the lower debt paths of peers.
- 8. CEMAC should implement an active and effective region-wide risk management framework for external debt sustainability, paired with a strengthened monitoring mechanism. CEMAC's regional convergence framework provides a number of debt-related criteria (Box 3). However, other traditional indicators used for external DSA could be usefully tracked as well, such as the present value of external debt over exports, or debt service over exports. Moreover, the current difficult regional economic circumstances reinforce previous IMF recommendations to disseminate these indicators widely and frequently for transparency and peer review purposes; and introduce yearly convergence compliance reviews of member countries by the CEMAC Commission, accompanied by a clear public statement of the regional institutions' findings.

#### **Box 3. CEMAC: Debt Management Processes and Objectives**

In the context of the Heavily Indebted Poor Countries (HIPC) and the Multilateral Debt Reduction Initiatives, which involved four of the six CEMAC countries, CEMAC Ministers of Economy and Finance adopted a public debt policy and debt management framework in 2007. The 2007 "regulation" requires each member government to develop a national public debt strategy to be submitted to its parliament annually along with draft budget law. In addition, country authorities were invited to establish specialized agencies under the Ministers of Finance to coordinate public debt policy. These agencies are to provide opinions on any domestic and external project financing. So far only Cameroon has successfully set up a national public debt committee, which meets every six weeks to review envisaged financing terms for new projects.

In parallel with the new surveillance mechanisms within each country, the regional authorities also adopted rules to monitor "convergence" through a common set of criteria and indicators (the "convergence framework"), which help track member countries' macroeconomic performance. There is a criterion on public debt, namely a ceiling of 70 percent of GDP for total public debt. With the adoption of a revised convergence framework from January 1, 2017, a new "secondary criterion" on public debt has been adopted to send an early warning of a potentially unsuitable pace of debt accumulation. The new criterion limits the "maximum pace of debt accumulation." It is defined as the maximum linear annual public debt increase consistent with reaching the ceiling of 70 percent of GDP in the following 25 years.

#### E. Conclusions

- 9. The recent increase in external debt in all CEMAC countries, except Chad, and the less favorable external environment give rise to a "moderate" regional risk of external debt distress. This is the result of the breach of every policy-dependent threshold in at least one of the stress tests. The broad distribution of breaches across "flow" and "stock" criteria in terms of fiscal and external performance underscores the wide-range of risks for CEMAC. The unfavorable outlook for oil prices exacerbates the impact of the rising debt stock on key debt ratios. Moreover, rising domestic borrowing compounds the overall risk of debt distress.
- **10. Investment programs financed by external debt are the main drivers of the regional debt increase.** This finding lends weight to earlier recommendations that a reorientation of debt policies is needed to heed the unfavorable external environment. Recommendations to improve debt sustainability and to reduce the risk of debt distress include the following.
- Adhering to the new regional secondary convergence criterion targeting the pace of debt accumulation.
- Anchoring fiscal policy to a sustainable pace of external debt accumulation.
- Making greater use of concessional borrowing.
- Monitoring debt developments closely on the basis of real-time data.
- Implementing policies to improve debt management.

Table 1. CEMAC: External Debt Sustainability Framework, Baseline Scenario, 2012–35<sup>1</sup>/
(Percent of GDP, unless otherwise indicated)

	Actual	Historical <sup>6</sup>	<sup>6/</sup> Standard <sup>6/</sup>			Projec	tions						
_		Average	Deviation							2015-2020			2021-203
	2014			2015	2016	2017	2018	2019	2020	Average	2025	2035	Average
External debt (nominal) 1/	22.4			26.7	28.9	29.4	30.0	29.8	29.8	29.6	28.6	28.8	29.1
of which: public and publicly guaranteed (PPG)	22.4			26.7	28.9	29.4	30.0	29.8	29.8		28.6	28.8	
Change in external debt	10.2			4.3	2.2	0.5	0.7	-0.3	0.1		0.1	-0.3	
identified net debt-creating flows	-0.4			5.5	2.2	0.2	-0.3	-0.6	-0.5		0.6	-0.6	
Non-interest current account deficit	3.8	-5.6	17.1	6.6	8.1	6.1	4.5	3.4	3.0		1.1	-1.4	0.1
Deficit in balance of goods and services	-7.5			-2.1	1.0	-1.5	-3.0	-3.8	-3.8		-3.7	-4.4	
Exports	50.6			42.4	36.8	37.8	38.1	37.6	36.2		29.9	26.8	28.
Imports	43.1			40.3	37.8	36.3	35.1	33.8	32.4		26.2	22.4	
Net current transfers (negative = inflow)	-0.8	-1.7	1.4	0.0	-0.1	-0.1	-0.2	-0.2	-0.2		-0.3	-0.4	-0.
of which: official	-1.0			-0.3	-0.4	-0.3	-0.4	-0.3	-0.3		-0.4	-0.4	
Other current account flows (negative = net inflow)	12.1			8.7	7.2	7.7	7.6	7.4	7.0		5.1	3.4	
Net FDI (negative = inflow)	-3.2	-2.2	15.0	-1.4	-6.0	-5.8	-4.6	-3.8	-3.4		-0.3	1.0	0.
Endogenous debt dynamics 2/	-0.9			0.3	0.2	-0.1	-0.2	-0.2	-0.1		-0.3	-0.2	0
Contribution from nominal interest rate	1.3			0.8	0.9	0.8	0.9	0.9	0.9		0.8	0.9	
Contribution from real GDP growth	-0.5			-0.5	-0.7	-1.0	-1.1	-1.1	-1.0		-1.1	-1.1	
Contribution from price and exchange rate changes	-1.7												
	10.6			-1.1	0.0	0.3	1.0	0.4				0.3	
Residual (3-4) 3/									0.6		-0.4		
of which: exceptional financing	-0.1			-1.4	-1.4	-0.6	-0.4	-0.5	-0.5		-0.6	-0.2	
PV of external debt 4/	15.4			20.8	22.4	22.6	23.0	22.7	22.7	22.7	21.7	22.4	22.
In percent of exports	30.5			49.0	60.8	59.7	60.4	60.5	62.8	60.8	72.5	83.6	78.
PV of PPG external debt	15.4			20.8	22.4	22.6	23.0	22.7	22.7		21.7	22.4	
In percent of exports	30.5			49.0	60.8	59.7	60.4	60.5	62.8		72.5	83.6	
In percent of government revenues	61.7			100.4	128.6	129.8	127.6	122.4	120.3	125.7	103.5	113.8	110.
Debt service-to-exports ratio (in percent)	4.7			5.6	7.3	7.5	6.4	6.6	6.5		6.9	8.2	
PPG debt service-to-exports ratio (in percent)	4.7			5.6	7.3	7.5	6.4	6.6	6.5	6.9	6.9	8.2	7.
PPG debt service-to-revenue ratio (in percent)	9.4			11.5	15.4	16.4	13.5	13.3	12.5	14.2	9.8	11.1	10.
Total gross financing need (Billions of U.S. dollars)	2.8			5.6	3.4	2.6	2.0	1.9	2.0		3.8	4.1	
Non-interest current account deficit that stabilizes debt ratio	-6.4			2.3	5.9	5.7	3.8	3.6	2.9		1.0	-1.1	
Key macroeconomic assumptions													
Real GDP growth (in percent)	4.9	3.6	1.6	1.8	2.5	3.8	3.9	4.0	3.5	3.2	4.0	4.0	4.
GDP deflator in US dollar terms (change in percent)	16.1	6.2	13.9	-23.4	-3.5	5.4	3.2	3.5	3.2	-1.9	1.5	1.5	1.
Effective interest rate (percent) 5/	12.7	2.9	3.5	2.8	3.2	3.2	3.1	3.2	3.1	3.1	3.0	3.2	3.
Growth of exports of G&S (US dollar terms, in percent)	-3.0	12.0	21.7	-34.6	-14.2	12.3	8.0	6.3	2.8	-3.2	2.8	5.5	3.
Growth of imports of G&S (US dollar terms, in percent)	7.2	-9.6	71.8	-27.0	-7.3	5.1	3.7	3.5	2.6	-3.2	2.0	5.5	3.
		-3.0	/1.0	7.5	20.0	19.9	20.7	20.4	21.0	-5.5 18.3	19.3	18.9	18.
Grant element of new public sector borrowing (in percent) Government revenues (excluding grants, in percent of GDP)	25.0			20.7	17.4	17.4	18.0	18.6	18.9	10.3	21.0	19.7	18. 20.
Aid flows (in Billions of US dollars) 7/	0.9			0.9	1.0	0.8	0.8	0.8	0.9		0.9	1.4	20.
of which: Grants	0.6			0.6	0.7	0.5	0.5	0.5	0.5		0.6	1.0	
of which: Concessional loans	0.3			0.4	0.3	0.3	0.3	0.2	0.3		0.2	0.4	
Grant-equivalent financing (in percent of GDP) 8/				1.1	1.8	1.6	1.5	1.3	1.3		1.1	0.9	1.
Grant-equivalent financing (in percent of external financing) 8/				23.1	34.3	29.7	30.9	31.5	32.2		31.0	30.7	30.
	0.4-				70.6	70.5		04.5	20.5		420.5	222 -	
	94.5			73.7	72.8	79.6	85.4	91.9	98.2		130.6	228.6	
Memorandum items: Nominal GDP (Billions of US dollars)							7.2	7.6	6.9	1.3	5.6	5.5	5.
Nominal GDP (Billions of US dollars) Nominal dollar GDP growth	222.6			-22.0	-1.2	9.3				1.5			
Nominal GDP (Billions of US dollars) Nominal dollar GDP growth PV of PPG external debt (in Billions of US dollars)				15.0	16.4	18.0	19.7	21.0	22.3		28.4	51.1	
Nominal GDP (Billions of US dollars) Nominal dollar GDP growth PV of PPG external debt (in Billions of US dollars) (PVt-PVt-1)/GDPt-1 (in percent)	222.6			15.0 1.8	16.4 1.8	18.0 2.2	19.7 2.1	21.0 1.5	22.3 1.4	1.8	28.4 1.4	51.1 1.0	
Nominal GDP (Billions of US dollars) Nominal dollar GDP growth PV of PPG external debt (in Billions of US dollars) (PVt-PVt-1)/GDPt-1 (in percent) Gross workers' remittances (Billions of US dollars)	222.6 13.4 0.5			15.0 1.8 0.4	16.4 1.8 0.5	18.0 2.2 0.5	19.7 2.1 0.5	21.0 1.5 0.5	22.3 1.4 0.5		28.4 1.4 0.7	51.1 1.0 1.1	
Nominal GDP (Billions of US dollars) Nominal dollar GDP growth PV of PPG external debt (in Billions of US dollars) (PVt-PVt-1)/GDPt-1 (in percent) Gross workers' remittances (Billions of US dollars)	222.6 13.4 0.5 15.4			15.0 1.8	16.4 1.8	18.0 2.2	19.7 2.1	21.0 1.5	22.3 1.4		28.4 1.4	51.1 1.0 1.1 22.3	
Nominal GDP (Billions of US dollars)	222.6 13.4 0.5			15.0 1.8 0.4	16.4 1.8 0.5	18.0 2.2 0.5	19.7 2.1 0.5	21.0 1.5 0.5	22.3 1.4 0.5		28.4 1.4 0.7	51.1 1.0 1.1	1.

Sources: Country authorities; and staff estimates and projections.

<sup>1/</sup> Includes both public and private sector external debt.

<sup>2/</sup> Derived as  $[r - g - \rho(1+g)]/(1+g+\rho+g\rho)$  times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and  $\rho =$  growth rate of GDP deflator in U.S. dollar terms.

<sup>3/</sup> Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.

 $<sup>\</sup>ensuremath{\mathrm{4/}}$  Assumes that PV of private sector debt is equivalent to its face value.

<sup>5/</sup> Current-year interest payments divided by previous period debt stock.

<sup>6/</sup> Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

<sup>7/</sup> Defined as grants, concessional loans, and debt relief.

<sup>8/</sup> Grant-equivalent financing includes grants provided directly to the government and through new borrowing (difference between the face value and the PV of new debt).

Table 2a. CEMAC: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2015–35

(Percent)

Baseline	2015	2016	2017	2018	2019	2020	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Baseline																	2033
Baseline			PV of deb	t-to GDP	ratio												
	21	22	23	23	23	23	22	22	22	23	23	23	23	23	23	23	22
A. Alternative Scenarios																	
A1. Key variables at their historical averages in 2015-2035 1/	21	12	6	0	-6	-11	-38	-41	-45	-47	-49	-51	-52	-54	-55	-56	-5
A2. New public sector loans on less favorable terms in 2015-2035 2/	21	23	25	26	26	27	29	30	31	32	32	33	34	34	35	35	3(
B. Bound Tests																	
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	21	23	23	24	23	23	22	22	23	23	23	23	23	23	23	23	2
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	21	21	26	26	26	26	24	24	24	25	25	25	24	24	24	24	2
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	21	23	27	27	27	27	26	26	27	27	27	27	27	27	27	27	2
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	21	38	53	53	52	51	44	42	41	40	39	38	36	35	34	33	3
B5. Combination of B1-B4 using one-half standard deviation shocks	21	25	34	34	33	33	30	30	29	29	29	29	28	28	27	27	2
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	21	33	33	33	33	33	32	32	32	33	33	33	33	33	33	33	3.
		P	V of debt-	to-export	s ratio												
Baseline	49	61	60	60	60	63	73	76	79	82	84	85	86	86	85	84	84
A. Alternative Scenarios																	
A1. Key variables at their historical averages in 2015-2035 1/	49	32	15	0	-16	-32	-127	-143	-157	-172	-182	-190	-196	-201	-205	-210	-21
A2. New public sector loans on less favorable terms in 2015-2035 2/	49	64	65	68	70	75	97	103	109	115	120	124	126	129	130	132	133
B. Bound Tests																	
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	49	61	60	60	61	63	73	76	79	82	84	85	86	86	85	84	8
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	49	54	81	82	82	84	96	99	102	106	107	108	108	108	106	105	10
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	49	61	60	60	61	63	73	76	79	82	84	85	86	86	85	84	8
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	49	104	141	139	138	141	146	146	146	146	143	140	136	132	127	122	11
B5. Combination of B1-B4 using one-half standard deviation shocks	49	60	81	80	80	83	91	93	94	97	97	97	96	95	93	91	8
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	49	61	60	60	61	63	73	76	79	82	84	85	86	86	85	84	8
		P\	of debt	to-revenu	e ratio												
Baseline	100	129	130	128	122	120	103	106	108	110	112	113	115	115	115	114	114
A. Alternative Scenarios																	
A1. Key variables at their historical averages in 2015-2035 1/	100	68	32	-1	-32	-60	-181	-199	-216	-230	-243	-254	-262	-270	-277	-284	-290
A2. New public sector loans on less favorable terms in 2015-2035 2/	100	135	141	144	143	143	139	144	150	155	160	165	169	173	176	179	18
B. Bound Tests																	
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	100	130	132	130	125	123	106	108	110	112	114	116	117	118	117	117	11
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	100	120	149	146	140	136	116	117	119	120	121	122	122	122	122	121	1
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	100	135	155	152	147	143	123	126	129	131	134	135	137	137	137	137	13
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	100	220	306	293	279	270	208	204	200	196	192	187	182	177	172	166	16
B5. Combination of B1-B4 using one-half standard deviation shocks	100	144	193	187	179	174	142	143	143	143	143	142	142	140	138	136	13
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	100	187	188	185	178	174	150	153	157	160	163	165	166	167	167	166	16

Table 2b. CEMAC: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2015–35 (concluded)

(Percent)

		Del	ot service-	to-expor	ts ratio												
Baseline	6	7	8	6	7	7	7	6	7	7	7	7	8	8	8	8	8
A. Alternative Scenarios																	
A1. Key variables at their historical averages in 2015-2035 1/	6	7	6	4	4	3	-4	-6	-7	-8	-10	-11	-11	-12	-13	-13	-14
A2. New public sector loans on less favorable terms in 2015-2035 2/	6	7	7	6	6	7	7	8	8	9	9	10	10	11	11	11	12
B. Bound Tests																	
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	6	7	8	6	7	7	7	6	7	7	7	7	8	8	8	8	8
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	6	7	9	8	8	8	9	8	9	9	9	10	10	10	10	10	10
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	6	7	8	6	7	7	7	6	7	7	7	7	8	8	8	8	8
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	6	7	9	9	10	10	14	13	13	14	14	14	14	14	13	13	13
B5. Combination of B1-B4 using one-half standard deviation shocks	6	6	7	7	7	7	9	8	8	8	9	9	9	9	9	9	9
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	6	7	8	6	7	7	7	6	7	7	7	7	8	8	8	8	}
		Deb	ot service-	to-reven	ue ratio												
Baseline	12	15	16	14	13	12	10	9	9	9	9	10	10	10	11	11	11
A. Alternative Scenarios																	
A1. Key variables at their historical averages in 2015-2035 1/	12	14	13	9	7	5	-6	-8	-10	-11	-13	-14	-15	-16	-17	-18	-19
A2. New public sector loans on less favorable terms in 2015-2035 2/	12	15	15	12	13	13	11	11	11	12	13	13	14	14	15	15	16
B. Bound Tests																	
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	12	15	17	14	14	13	10	9	9	9	10	10	10	11	11	11	11
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	12	15	16	14	14	13	11	10	10	10	10	11	11	11	12	12	12
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	12	16	20	16	16	15	12	11	11	11	11	12	12	13	13	13	13
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	12	15	20	20	19	18	20	19	18	18	18	18	18	18	18	18	18
B5. Combination of B1-B4 using one-half standard deviation shocks	12	15	18	16	16	15	14	13	13	13	13	13	13	13	14	14	14
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	12	22	24	20	19	18	14	13	13	13	14	14	15	15	16	16	16
Memorandum item:																	
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15

Sources: Country authorities; and staff estimates and projections.

 $<sup>1/</sup>Variables include \ real \ GDP\ growth, growth \ of\ GDP\ deflator\ (in\ U.S.\ dollar\ terms), non-interest current\ account\ in\ percent\ of\ GDP, and\ non-debt\ creating\ flows.$ 

<sup>2/</sup> Assumes that the interest rate on new borrowing is by 2 percentage points higher than in the baseline, while grace and maturity periods are the same as in the baseline.

<sup>3/</sup> Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming an offsetting adjustment in import levels).

<sup>4/</sup> Includes official and private transfers and FDI.

<sup>5/</sup> Depreciation is defined as percentage decline in dollar/local currency rate, such that it never exceeds 100 percent.

<sup>6/</sup>Applies to all stress scenarios except for A2 (less favorable financing) in which the terms on all new financing are as specified in footnote 2.

# CEMAC—INSTITUTIONS AND MEDIUM-TERM FISCAL FRAMEWORK

Although the institutional framework of the Economic and Monetary Community of Central Africa (CEMAC) appears reasonably sound, the slump in oil prices has brought to the fore coordination weaknesses, which, if not addressed, could threaten the monetary union. In particular, financing needs associated with widening fiscal and external current account deficits have raised concerns about macroeconomic stability and highlighted the need for a significant fiscal adjustment. To address these challenges, the CEMAC Commission has begun to strengthen the regional surveillance framework and has expressed interest in implementing counter-cyclical fiscal policies. This paper discusses the design and implementation issues involved in establishing a credible medium-term framework for fiscal sustainability.<sup>1</sup>

#### A. Institutional Setup

- 1. CEMAC has necessary institutional instruments to implement sound and coordinated macroeconomic policies. CEMAC's main decision making body is the Conference of Heads of State. The Conference meets and its presidency rotates among member states annually. Its major function is to determine the main objectives of the Community. It nominates the heads of most CEMAC institutions.
- **2.** The Commission is the main management and administrative body of CEMAC. Following the example of the European Union, the Commission is composed of Commissioners from each member state, led by a President and a Vice-President. At present, four Commissioners have been appointed for the following policy areas: economic and monetary policies; the common market; infrastructure and sustainable development; and human rights and good governance.
- **3. CEMAC's regional central bank is the BEAC.** The BEAC issues the common currency (the CFA franc), which is pegged to the euro, and pools foreign exchange reserves of member states. It conducts a single regional monetary policy, with the goal of preserving price stability. The inflation target and instruments are defined by the BEAC's Monetary Policy Committee, which includes the governor, the vice-governor, a representative of each of the member states, one member appointed by France,<sup>2</sup> and four representatives from CEMAC countries.

# **B.** Macroeconomic Policy Coordination

4. In principle, the CEMAC Commission coordinates its members' macroeconomic policies and addresses a number of important common challenges. Its multilateral surveillance focuses on

(continued)

<sup>&</sup>lt;sup>1</sup> Prepared by Koffie Nassar.

<sup>&</sup>lt;sup>2</sup> The French Treasury guarantees the convertibility and the peg of the CFA Franc.

members' compliance with a set of "convergence" criteria. Achievements have been substantial, but more macroeconomic policy coordination needs to be strengthened.

- **5.** Theoretical evidence suggests that fiscal and monetary policy coordination leads to better outcomes in terms of achieving price stability.<sup>3</sup> To achieve such a coordination, a number of conditions must be met, including free movement of capital, a credible no bail-out commitment, no monetization of public debt, and sensitivity of sovereign interest rates to fiscal behavior.<sup>4</sup> In other words, financial markets must be sufficiently developed to transmit price signals between fiscal and monetary policies. However, this is not currently the case in CEMAC, where the financial market, in particular a secondary market for government securities, is at an early stage of development.
- **6. In CEMAC, fiscal and monetary policies are designed and implemented by independent bodies.** Although the BEAC conducts the Community's common monetary policy, fiscal policy in member countries is designed and implemented by individual ministries of finance. As such, each country sets its own fiscal deficit target based on national priorities. In practice, once national budgets are approved, the BEAC adjusts its monetary policy to accommodate the financing needs of the aggregate fiscal deficit at the regional level, either directly in the form of "statutory advances," or indirectly through its refinancing window for commercial banks and changes in the reserve requirement. Consequently, there is a risk that, (i) when the overall fiscal deficit at the regional level widens (as in recent years), the BEAC loses control of domestic liquidity; and (ii) higher fiscal deficits exert pressure on the external position.
- 7. There are rules for the BEAC's financing of governments. Although financing of governments by the BEAC is in principle forbidden, there are some exceptions: statutory advances and refinancing of commercial banks on sovereign collateral are allowed up to 20 percent and 35 percent of the previous year's fiscal revenue, respectively. The BEAC also monitors the overall fiscal and debt stance of member countries.
- 8. In addition, the CEMAC Commission monitors convergence of economic performance through a multilateral surveillance mechanism. The CEMAC Treaty specifies measures to promote compliance with the regional convergence criteria. The Council of Finance Ministers adopts the rules required for the convergence of national economic policies and their harmonization with the regional monetary policy. It also establishes the terms of their application and the timeframe for implementation. For the purposes of multilateral surveillance, the Commission issues decisions specifying the types of information required for surveillance, including statistical data and information relating to economic policy measures, and members comply on a regular basis. If a member country fails to satisfy the convergence requirements, the Commission can propose corrective measures. During the commodity super cycle of 2010–14, the tasks faced by the Commission were not challenging because economic growth was strong, inflation was low, and external imbalances were limited. As a result, policy dialogues were ex post presentations of policy measures taken by member states and were thus not useful for seriously influencing economic policy

<sup>&</sup>lt;sup>3</sup> See Kireyev (2016); Gali and Monacelli (2008); Fragetta and Kirsanova (2010), Hallett et al. (2011); and Dally and Smida (2013).

<sup>&</sup>lt;sup>4</sup> See Hitaj and Onder (2013); and Alexander and Anker (1997).

decisions of member countries. Following the oil price slump, the Commission has sought to strengthen coordination of fiscal policy.

#### C. CEMAC's Fiscal Surveillance Framework

- 9. CEMAC's fiscal surveillance framework combines a budget balance rule with a debt rule (Table 1 and Annex I). Three of the four primary convergence criteria are of a fiscal nature: (i) central government basic fiscal balance, defined as total revenue (net of grants) minus total expenditure, excluding foreign-financed capital spending is required to be in balance or surplus; (ii) the debt rule requires central government total debt to be kept below 70 percent of GDP; and (iii) governments should not accumulate arrears. Secondary criteria include a number of fiscal targets, but they are less directly aimed at the stability of the monetary union. Since 2002, the basic fiscal balance has been used as the main indicator to track fiscal convergence. In 2008, the CEMAC Commission introduced two supplementary criteria: (i) the basic structural balance, based on oil revenue calculated using a 3-year moving average; and (ii) the non-oil basic balance (as a percent of non-oil GDP). Both indicators should be in balance or surplus.
- **10. The basic fiscal balance rule has some significant limitations.** Although the basic balance rule is a useful measure of fiscal effort by country authorities, it does not provide a strong anchor to assess the fiscal stance and ensure long-term fiscal sustainability. The exclusion of the foreign-financed capital expenditure raises two issues. First, it excludes a substantial source of debt accumulation. Second, it discriminates among sources of financing, to the detriment of regional financing, which in CEMAC needs to be developed. The non-oil basic balance supplementary indicator suffers from similar weaknesses. The structural basic balance, though an interesting innovation, also suffers from the weaknesses associated with the basic balance.
- 11. Compliance with the basic fiscal balance rule has been uneven, raising issues about its relevance and credibility (Table 2). During the commodity super cycle, the Republic of the Congo ran large basic balance surpluses, peaking at 19 percent of GDP in 2011. Gabon also had surpluses through 2015, peaking at 5.8 percent of GDP in 2010. However, most countries repeatedly missed the target. This begs the question of whether policies were inadequate or if the criterion itself needs to be reconsidered. With economic growth depressed, public debt surging (Table 3), sovereign risk premium rising, and international reserves declining sharply (Figure 1), country authorities are pressed to rein in fiscal deficits. In January 2016, the Council of Ministers adopted a new set of convergence criteria to enter into force in January 2017 (Table 1). These include a floor on the overall budget balance and an oil revenue savings rule, but retain the non-accumulation of arrears and maintain the ceiling on total debt-to-GDP ratio at 70 percent.

<sup>&</sup>lt;sup>5</sup> See International Monetary Fund (2013a).

<sup>&</sup>lt;sup>6</sup> This is assuming that credit risk and potential weaknesses of domestic financial institutions are addressed.

**Table 1. CEMAC: Fiscal Benchmarks for Multilateral Surveillance, 2001–16** (Units as specified)

		2001 benchmarks		2016 revised benchmarks
	Norms	Definitions	Norms	Definitions
Budget rule	≥ 0 %	The basic fiscal balance is defined as total	≥ -1.5 % of	Overall blance with an oil revenues savings
		revenue (net of grants) minus total	GDP	rule=(Overall balance)/GDP- $\alpha$ (oil revenues)/GDP. For
		expenditure, excluding foreign-financed		each country, parameter $\boldsymbol{\alpha}$ is the shares of oil
		capital spending. It is measured at the		revenue to be saved, based on three-year averages
		central government level.		to smooth short-term fluctuations.
Public debt ceiling	70 % of		70 % of GDP	
Arrears		Non-accumulation of arrears.		Non-accumulation of arrears.
Tax revenue (excluding oil	≥ 20 %		≥ 17 %	Tax revenue (excluding oil revenues)-to-GDP ratio.
revenues)				
Wages and Salaries/Total revenue	≤ 35 %		≤ 35 %	
Capital expenditure (in % of GDP)			≥ 20 %	
Other				
Inflation	≤ 3 %	Yearly index.	≤ 3 %	Three-year average.
Real GDP growth			≥ 7 %	
Application				Benchmarks applied equally across countries and to
				be achieved by 2019.

Source: CEMAC commission.

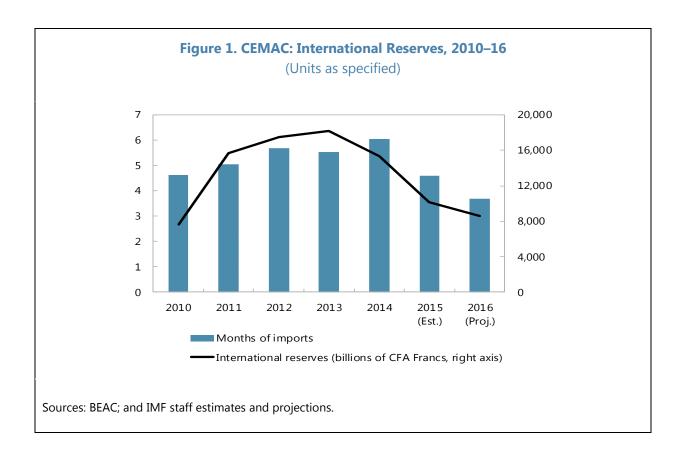
	Та		<b>/IAC: Basic</b> ent of GDP				
	2010	2011	2012	2013	2014	2015	2016
							Proj.
Cameroon	-7.5	-9.3	-9.4	-8.3	-7.4	-6.6	-9.2
Central African Republic	-2.1	-2.0	-0.2	-7.5	-5.7	-2.9	-3.0
Chad	-3.0	3.1	1.7	-2.0	-3.9	-4.4	-6.9
Congo, Republic of	17.4	19.1	10.5	5.7	-2.9	-9.2	-6.0
Equatorial Guinea	-5.0	4.6	-9.0	-7.5	-6.7	-3.1	-8.2
Gabon	5.8	5.4	3.7	4.9	5.5	0.0	1.0
CEMAC	0.9	3.2	-1.3	-2.2	-3.1	-5.2	-4.1

Source: IMF staff estimates and projections.

 $<sup>^{1\!/}\</sup>textsc{Overall}$  budget balance excluding grants and foreign-financed investments.

	le 3. CEM <i>A</i>	ercent of G		10 10			
	2010	2011	2012	2013	2014	2015	2016 Proj.
Cameroon	6.2	13.2	15.4	18.7	28.0	31.2	36.1
Central African Republic	20.0	32.9	34.5	38.5	51.1	48.5	47.2
Chad	24.6	29.5	28.2	29.7	38.5	40.0	41.7
Congo, Republic of	20.2	33.1	34.1	38.2	47.5	70.6	69.4
Equatorial Guinea	10.2	7.4	9.1	7.9	12.0	19.6	26.3
Gabon	9.7	17.9	19.7	29.2	32.2	44.0	47.7
CEMAC	18.0	18.9	20.0	23.7	31.2	39.0	43.0
Memo item							
International reserves (millions of US\$)	13,658	15,717	17,531	18,222	15,309	10,139	7,866

Source: IMF staff estimates.



12. Although unadjusted budget balance rules may be useful in the short term, they tend to be procyclical. Such rules do not reflect revenue and expenditure changes driven by cyclical factors. They are too rigid to allow deficits in recessions, counterbalanced by surpluses in boom times. Although these rules may help anchor fiscal policy in the short-term, there are many reasons why they may not guarantee long-term fiscal sustainability. First, the experience of the European Union's deficit of 3 percent of GDP under the Stability and Growth Pact and the occasional U.S. proposals for a Budget Balance Amendment (i.e., zero deficit) show that an unadjusted budget

balance target that might have been a reasonable goal *ex ante*, becomes unreasonable after an unexpected shock. Second, procyclical policies have the undesirable macroeconomic consequence of amplifying and possibly extending boom and bust features of business cycles. They also frequently entail significant social costs—for example, adhering to a strict unadjusted budget balance rule could result in cuts in social programs at a time of rising unemployment and poverty. They could also carry efficiency costs, such as deferment or cancellation of investments, or cuts in maintenance programs during recessions. Furthermore, given that pro-cyclicality tends to be stronger during booms than recessions in CEMAC, budget balance rules exert a ratchet effect on public debt, with attendant risks for longer-term sustainability.

#### D. The Pro-Cyclicality of Fiscal Policy

13. Pro-cyclicality of fiscal policy is especially pronounced in the five CEMAC countries where income from the oil sector dominates the business cycle. In CEMAC, oil accounted for approximately 29 percent of GDP and 54 percent of fiscal revenue in 2014 (Table 4). This explains the sensitivity of economies and budgets to oil prices. Table 5 depicts each member country's correlation between total real government expenditure and GDP. They are all approaching +1, denoting a strongly pro-cyclical policy. The interesting observation is that most countries show pro-cyclical spending, with Cameroon, the largest economy and which depends less on oil, showing a correlation of 1.

	(Units as specified)		
	Nominal oil GDP	Oil revenue	
	(percent of each	(percent of each country's	
	country's nominal GDP)	total fiscal revenue)	
Cameroon	6.3	23.7	
Central African Republi	0.0	0.0	
Chad	25.2	49.3	
Congo, Republic of	54.4	68.6	
Equatorial Guinea	46.6	86.5	
Gabon	37.9	44.0	
CEMAC	28.5	54.2	

14. A major reason for pro-cyclical spending in the CEMAC is that when government receipts from taxes or royalties rise in oil booms, governments tend to increase spending. Two large budget items that account for much of the increased spending during the commodity boom are investment projects and subsidies and transfers. Investment in infrastructure can have long-term pay-off if it is well designed and executed in a cost-effective manner. Conversely, general consumption subsidies and transfers, which are not targeted at the poor in society, have no lasting developmental impact. There have also been instances in CEMAC when oil windfalls have been spent on higher public sector wages. Subsidies and wage bill increases are difficult to reverse when oil prices decline.

Table 5. CEMAC: Cyclical Correlation of Real Government Spending and Real GDP,
1990-2015 <sup>1/</sup>

Cameroon	0.97
Central African Republic	0.89
Chad	0.90
Congo, Republic of	0.86
Equatorial Guinea	0.78
Gabon	0.85
CEMAC	0.94

Sources: CEMAC authorities; and IMF staff estimates.

- **15. Pro-cyclicality of fiscal policy can lead to "disease."** An example is "Dutch Disease," defined as a boom in spending on non-traded goods and services that arises in response to a rise in the world price of a natural resource, such as oil. One interpretation, particularly relevant if the complete cycle is not adequately foreseen, is that the process is reversed when the world price of oil declines. A second interpretation is that, even if the perceived longevity of the increase in the world price of oil turns out to be accurate, the crowding out of non-commodity exports is undesirable.<sup>7</sup> Perhaps this explains why large oil exports have stymied economic diversification in CEMAC.
- 16. How can fiscal policy be made more countercyclical, or at least less pro-cyclical? It takes a long-term perspective to frame policies in terms of the complete business cycle: less government expansion during booms, counterbalanced by more spending during busts. This is necessary in CEMAC, where there has been evidence of overspending oil revenue during boom periods and of cut-off of funds when the market goes bust. In a context where short-term political pressures are strong, CEMAC needs strong Community institutions, which can help governments achieve countercyclical fiscal policies in the long run. CEMAC needs to set up fiscal rules *ex ante*, which are more likely to deliver the right results *ex post*.

# E. Making Fiscal Policy More Countercyclical

17. Given CEMAC's exposure to symmetric shocks (from oil prices), adopting cyclically adjusted rules might be a sensible option to strengthen the fiscal surveillance framework. If well-designed and effectively implemented, these rules can help reduce time-inconsistent policies, strengthen the credibility of governments' commitment to fiscal responsibility, and facilitate countercyclical fiscal management.

<sup>&</sup>lt;sup>1/</sup> For details, see Kaminsky, Reinhart & Vegh (2005).

<sup>&</sup>lt;sup>7</sup> This explains why, in a boom, such as the recent commodity super cycle, it is not advisable to engage in expansionary spending and monetary policy that exacerbate overheating, loss of competitiveness, and debt accumulation.

#### F. Adopting Adjusted (Structural) Budget-Balance Rules

- **18.** An appropriate fiscal framework should address the need for short-term consolidation while ensuring long-term sustainability. Given CEMAC member countries' high dependence on oil, the design of the fiscal rule needs to internalize the likelihood of macro-volatility stemming from volatility in international prices. A structural budget-balance rule, complemented by a debt rule, could accommodate CEMAC's business cycle fluctuations and macro-vulnerabilities, while providing a credible medium-term anchor for fiscal sustainability.
- **19. Structural budget-balance rules filter the impact of cyclical movements on fiscal variables.** The structural budget-balance rule aims at approximating the budget balance that would prevail if the economy was operating at its full potential. As such, it constrains discretion in fiscal policy, signals commitment to fiscal sustainability, and avoids pro-cyclicality by enabling automatic stabilizers to work. It ensures that the fiscal dividends of an economic recovery are used to strengthen budget positions, thereby creating room for adequate fiscal policy responses to future shocks.
- 20. Combining a structural budget-balance rule with a long-term debt anchor could serve CEMAC well, provided the supportive infrastructure and institutional capacity are developed. Given the trend increase in public debt, a debt rule would align the medium-term fiscal framework with an anchor (e.g., achieving a debt-to-GDP ratio of 40 percent, which is currently some individual countries' debt target). Debt rules are more directly linked to fiscal sustainability than budget-balance rules, since they capture the impact of below-the-line operations that do not affect the budget balance, but increase the public debt (e.g., recognition of previously unrecognized or contingent liabilities). Debt rules also have the advantage of requiring the fiscal stance to be aligned in the event of a permanent (structural) shock.
- 21. However, these rules need to be formulated carefully, with "escape clauses" (Annex II). Escape clauses provide flexibility in the event of exogenous shocks in order to prevent a systematic debt buildup. They specify the circumstances under which a rules-based fiscal framework can be temporarily relaxed or put into abeyance. Such escape clauses and their possible triggers must be specified, with clear guidelines as to their interpretation and application. Although escape clauses are intended to deal with the consequences of large but temporary shocks, more permanent ones require a lasting revision of the rule's target. It is also good practice to review, on the basis of economic fundamentals, the debt target and path every three to four years. In addition, since debt ceilings can often be avoided by granting guarantees in lieu of loans, the CEMAC Commission should appropriately include provisions for a ceiling on explicit and implicit public guarantees in its fiscal framework and rules.

<sup>&</sup>lt;sup>8</sup> CEMAC's estimated 2015 regional average debt-to-GDP ratio was about 45 percent.

#### G. Simulated Performance of Alternative Budget-Balance Rules

**22. For illustrative purposes, we simulate the impact of two alternative budget-balance rules on public debt.** These are: (i) a structural budget-balance rule assuming a gradual adjustment path, which is a steady reduction in the structural overall deficit to zero by 2020, when the output gap closes; and (ii) unadjusted budget-balance rules with constant overall deficit ceilings of 1.5 percent and 0.0 percent of GDP. The simulations are conducted for the period 2017–20 and are based on the assumptions shown in Table 6.9

Table 6. CEMAC: Simulation Assumptions, 2016–20 (Units as specified)								
	2016	2017	2018	2019	2020			
	(Percent)							
Nominal GDP growth	2	3	4	4	4			
Output gap	-1.7	-1.7	-1.4	-0.5	0.0			
Nominal interest rate	5.0	5.0	5.0	5.0	5.0			
	(Percent of GDP)							
Overall fiscal balance (structural balance rule)	-5.0	-3.0	-1.5	-0.5	0.0			
Overall fiscal balance (1.5 percent headline deficit rule)	-5.0	-1.5	-1.5	-1.5	-1.5			
Overall fiscal balance (0.0 percent headline deficit rule)	-5.0	0.0	0.0	0.0	0.0			
Source: Author's assumptions.								

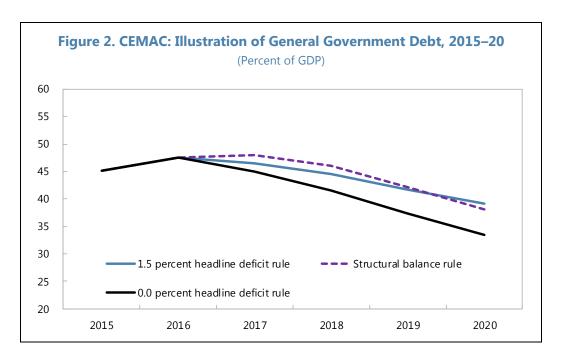
### 23. Simulation results illustrate different debt dynamics and degrees of flexibility

**depending on the rule** (Figure 2). Under the structural (adjusted) budget balance, public debt would decline to 38 percent of GDP in 2020, when the output gap closes and the overall deficit converges to zero. The unadjusted budget-balance deficit rule of 1.5 percent of GDP broadly replicates the outcome of the structural budget-balance, but the debt dynamics reverses after 2019. Finally, the unadjusted budget-balance deficit rule of zero percent of GDP requires the largest fiscal adjustment. As a result, the debt-to-GDP ratio declines to 33 percent of GDP in 2020. Faster adjustment comes with tradeoffs. First, a zero overall balance in 2017 would require across-the-board cuts in expenditure, which is not desirable. Second, as noted above, a faster adjustment would have a larger up-front growth cost than would a more gradual approach, because of the multiplier effect. 11

<sup>&</sup>lt;sup>9</sup> Note that this does not incorporate, for example, impact of fiscal consolidation (multiplier) on growth.

<sup>&</sup>lt;sup>10</sup> Though it could be higher if multiplier impact is higher.

<sup>&</sup>lt;sup>11</sup> See Abbas et al., (2013).



24. However, technical complexities associated with structural budget-balance rules raise concerns about their suitability. First, the structural balance is difficult to estimate and apply for fiscal surveillance owing to uncertainty in measuring the output gap. Incorrect estimates of potential output could lead to mistakes in assessing the magnitude of the output gap<sup>12</sup> and thus in determining the appropriate fiscal stance (Ho and Mauro, 2015). This is because, more often than not, macroeconomic forecasts of growth fail to take into account "reversion to the mean" (Pritchett and Summers, 2014) and are plagued with widespread optimism bias (Ho and Mauro, 2014). Optimistic economic growth forecasts lead to an underestimation of the government's debt-to-GDP ratio in the medium term. As a result, the country could end up with a higher-than-expected debt ratio. Second, data deficiencies (including lack of data on arrears) and capacity constraints make it difficult to estimate a meaningful structural budget balance. Third, the existence of off-budget funds and difficulties in measuring capital spending, when projects are implemented outside the central government, add additional complexities in evaluating the fiscal position.

# **H. Supporting Institutions**

**25. Fiscal rules** *per se* **do not guarantee successful implementation of counter-cyclical fiscal policies.** It is also important to devote efforts and resources to strengthening the capacity of key institutions in charge of implementing laws and rules. First, there should be reliable data availability as well as a minimum technical forecasting capacity, which are broadly available at the economic policy unit of the CEMAC Commission. Each Ministry of Finance would have to enhance its capacity to prepare budgets based on realistic assumptions, monitor the behavior of line ministries and public enterprises, and effectively enforce corrective measures, if necessary.<sup>13</sup> In this context, macro-fiscal

<sup>&</sup>lt;sup>12</sup> The difference between what the economy is capable of producing on a sustained noninflationary basis and what it is producing (a measure of the degree of slack in the economy).

<sup>&</sup>lt;sup>13</sup> Major weaknesses in commitment control and oversight mechanisms would have to be addressed.

units of the Commission and Ministries of Finance need to be strengthened to produce reliable data and forecasts (including a medium-term expenditure framework) and analyze sectoral linkages and business cycles. Second, budget reporting systems need to be comprehensive in terms of aggregates covered, and sufficiently developed to produce in-year and timely end-year reports. This allows monitoring of the adherence to the rule, and provide an opportunity to inform policymakers in time if policy changes are needed. Third, internal and external audit systems need to be strengthened to ensure that public resources utilization is fully accounted for. And finally, fiscal data—consistent with the budget reporting system—should be publicly released in line with a pre-announced calendar to allow external monitoring of the rule.

26. The Commission would need to establish a fiscal council to enhance implementation of the rules. IMF (2013b) defines a fiscal council as

"a permanent agency with a statutory or executive mandate to assess publicly and independently from partisan influence government's fiscal policies, plans and performance against macroeconomic objectives related to the long-term sustainability of public finances, short- and medium-term macroeconomic stability, and other official objectives."

A fiscal council's key functions include: (i) contribution to the use of unbiased macroeconomic and budgetary forecasts in budget preparation (through preparing forecasts, or proposing prudent levels for key parameters); (ii) identification of sensible fiscal policy options, and possibly, formulation of recommendations; (iii) facilitation of the implementation of fiscal policy rules; and (iv) costing of new policy initiatives. The fiscal council also needs to have a legal framework that safeguards resources to conduct the required analytical tasks. Finally, the council must have strong media presence, consistent with the fact that its effectiveness hinges importantly on the reputational and electoral impact of its analysis for policymakers. Indeed, if well-designed and effective, the fiscal council, like fiscal rules, can contribute in its own right to fiscal performance. In CEMAC, establishing a fiscal council would be challenging, not least because of the lack of reliable macroeconomic data and inability to enforce public administration laws, including sharing information with the Commission.

27. CEMAC's new convergence framework is a step in the right direction. Although the credibility of the CEMAC member countries' commitment to fiscal rules will depend crucially on the soundness of the design, the existence of basic institutional pre-conditions for successful implementation, and the early adoption of adequate fiscal consolidation measures to achieve the rule's targets, empirical evidence suggests that fiscal rules have typically been adopted to lock-in fiscal adjustment gains (IMF 2009). As such, CEMAC's new convergence criterion, which targets an overall budget balance of -1.5 percent of GDP, would facilitate fiscal consolidation over the next few years and should be the priority.

#### I. Concluding Remarks

**28.** The CEMAC Commission has expressed interest in implementing countercyclical fiscal policies. The paper highlights essential features for an effective fiscal rule framework, including well-defined escape clauses to deal with exceptional events, and an independent fiscal council to monitor the rules. Given CEMAC's exchange rate peg, susceptibility to oil price shocks, and revenue volatility, this paper argues that a structural budget-balance rule, complemented by a debt rule, could serve CEMAC well. Structural budget-balance rules have advantages, including flexibility to allow automatic stabilizer to work and constraining discretion (especially during resource price upturns). However, given the administrative, institutional, and technical shortcomings at present in CEMAC, a structural balance rule would be challenging to implement. These issues, coupled with the fact that prior consolidation makes the adoption of a fiscal rule more credible, suggest that the new unadjusted budget-balance target would facilitate fiscal consolidation over the next few years and should be the priority in the near term.

## **Annex I. Properties of Different Types of Fiscal Rules**

Type of rule	Pros	Cons
Debt rule	Direct link to debt sustainability     Easy to communicate and monitor	<ul> <li>No clear operational guidance in the short run as policy impact on debt ratio is not immediate and limited</li> <li>No economic stabilization feature (can be procyclical)</li> <li>Rule could be met via temporary measures (e.g., below-the-line transactions)</li> <li>Debt could be affected by developments outside the control of the government</li> </ul>
Budget balance rule	<ul><li>Clear operational guidance</li><li>Close link to debt sustainability</li><li>Easy to communicate and monitor</li></ul>	<ul> <li>No economic stabilization feature (can be procyclical)</li> <li>Headline balance could be affected by developments outside the control of the government (e.g. a major economic downturn)</li> </ul>
Structural budget balance rule	<ul> <li>Relatively clear operational guidance</li> <li>Close link to debt sustainability</li> <li>Economic stabilization function (i.e., accounts for economic shocks)</li> <li>Allows to account for other one-off and temporary factors</li> </ul>	<ul> <li>Correction for cycle is complicated, especially for countries undergoing structural changes</li> <li>Need to pre-define one-off and temporary factors to avoid their discretionary use</li> <li>Complexity makes it more difficult to communicate and monitor</li> </ul>
Expenditure rule	<ul> <li>Clear operational guidance</li> <li>Allows for economic stabilization</li> <li>Steers the size of government</li> <li>Relatively easy to communicate and monitor</li> </ul>	<ul> <li>Not directly linked to debt sustainability since no constraint on revenue side</li> <li>Could lead to unwanted changes in the distributio of spending if, to meet the ceiling, shift to spending categories occurs that are not covered by the rule</li> </ul>
Revenue rule	<ul> <li>Steers the size of government</li> <li>Can improve revenue policy and administration</li> <li>Can prevent pro-cyclical spending (rules constraining use of windfall revenue)</li> </ul>	<ul> <li>Not directly linked to debt sustainability since no constraint on expenditure side (except rules constraining use of windfall revenue)</li> <li>No economic stabilization feature (can be procyclical)</li> </ul>

## **Annex II. Escape Clauses—Country Examples**

Country	
Brazil (2000)	Real GDP growth of less than 1 percent for four quarters, and natural disaster but can only be invoked with congressional approval.
Colombia (2011)	In case of extraordinary events threatening the macroeconomic stability of the country, enforcement of the fiscal rule may be temporarily suspended, subject to the favorable opinion of CONFIS (an internal fiscal council headed by the finance minister).
Germany (2010)	Natural disasters or unusual emergency situations that are outside government control and have major impact on the financial position of the government. Absolute majority of parliament is needed to trigger the escape clause. Parliament must approve an amortization plan with a specified time frame for reducing the accumulated deviation. Until 2010, escape clause in case of a "distortion of the macroeconomic equilibrium."
Jamaica (2010)	The targets may be exceeded on the grounds of national security, national emergency, or such other exceptional grounds as the minister may specify in an order subject to affirmative resolution.
Mauritius (2008)	Temporary deviations in case of emergencies and large public investment projects.
Mexico (2006)	If non-oil revenues are below their potential because of a negative output gap, there can be a deficit equivalent to the shortfall.
Panama (2008)	If real GDP grows by less than 1 percent, the nonfinancial public sector deficit ceiling can be relaxed to percent of GDP in the first year, followed by a gradual transition to the original ceiling (1 percent of
Peru (2000)	If real GDP declines, or in case of other emergencies declared by the congress at the request of the executive, the deficit ceiling can be relaxed to 2.5 percent of GDP. The Executive must specify deficit are expenditure ceilings to be applied during the exception period. In both cases, a minimum adjustment of 0.5 percent of GDP is required until the 1 percent deficit ceiling is reached.
Romania (2010)	In case of a government change, the new government will announce whether its program is consistent with the medium-term budgetary framework (MTBF) and if not the ministry of finance will prepare a revised MTBF, to be approved by parliament and subject to the review and opinion of the fiscal council
Slovak Republic (2012)	Escape clauses for a major recession, banking system bailout, natural disaster, and international
Spain (2002)	In case of natural disasters or an exceptional slowdown, exceptional budget deficits are to be accompanied by a medium-term financial plan to correct this situation within the next three years (to be approved by a majority vote by the parliament).
Switzerland (2003)	The government can approve by supermajority a budget deviating from the budget balance rule in "exceptional circumstances," which are defined in Budget Law as natural disaster, severe recession, and changes in accounting methods.
EU member states (2005)	An excessive deficit procedure may not be opened when the 3 percent deficit limit is exceeded only temporarily and exceptionally, and the deficit is close to the deficit limit (both conditions need to apply). Deadlines for excessive deficit correction can be extended in case of adverse economic developments.

Sources: National authorities; and IMF staff assessment.

#### References

- Abbas, S. A., B. Akitoby, J. Andritzky, H. Berger, T. Komatsuzaki, J. Tyson, 2013, "Dealing with High Debt in an Era of Low Growth," IMF Discussion Note 13/07 (Washington, DC: International Monetary Fund).
- Alexander, V., and P. Anker, 1997, "Fiscal Discipline and the Question of Convergence of NationalInterest Rates in the European Union," *Open Economies Review*, Vol. 8, No. 4, pp. 335-352.
- Daly, H., and M. Smida, 2013, "Coordination of Monetary and Fiscal Policies: Theoretical Overview," Munich Personal RePEc Archive (MPRA) Paper No. 48066.
- Fragetta, M., and T. Kirsanova, 2010, "Strategic Monetary and Fiscal Policy Interactions: An Empirical Investigation," *European Economic Review*, Elsevier, Vol. 54 (7), pages 855-879.
- Gali, J., and T. Monacelli, 2008, "Optimal Monetary and Fiscal Policy in a Currency Union," *Journal of International Economics*, Vol. 76 (1), pages 116-132.
- Hallett, A., J. Libich, and P. Stehlk, 2011, "Welfare Improving Coordination of Fiscal and Monetary Policy," *AUCO Czech Economic Review 5*, pages 7-26.
- Hitaj, E., and Y. K. Onder, 2013, "Fiscal Discipline in WAEMU: Rules, Institutions, and Markets," IMF Working Paper 13/216 (Washington, DC: International Monetary Fund).
- Ho, G., and P. Mauro, 2014, "Growth: Now and Forever?" IMF Working Paper 14/117 Washington, DC: International Monetary Fund).
- Ho, G., and P. Mauro, 2015, "Prognosis: Rosy" Finance and Development, March 2015, (Washington, DC: World Bank and International Monetary Fund).
- International Monetary Fund, 2009, "Fiscal Rules—Anchoring Expectations for Sustainable Public Finances," IMF Policy Paper, (Washington, DC: International Monetary Fund).
- International Monetary Fund, 2013a, "CEMAC: Staff Report on Common Policies for Member Countries," IMF Board Paper (Washington, DC: International Monetary Fund).
- International Monetary Fund, 2013b, "The Functions and Impact of Fiscal Councils," IMF Policy Paper, (Washington, DC: International Monetary Fund).
- Kaminsky, G., C. Reinhart, and C. Vegh, 2005, "When It Rains, It Pours: Procyclical Capital Flows and Macroeconomic Policies," *NBER Macroeconomics Annual 2004*, Vol. 19, pages 11–82.
- Kireyev, A.P., 2016, "Macroeconomic Policy Coordination," in *Building Integrated Economies in West Africa: Lessons in Managing Growth, Inclusiveness, and Volatility*, Edited by A.P. Kireyev, (Washington, DC: International Monetary Fund).
- Mpatswe, G.K., S.J. Tapsoba, and R.C. York, 2011, "The Cyclicality of Fiscal Policies in the CEMAC Region," IMF Working Paper No. 11/205 (Washington, DC: International Monetary Fund).
- Pritchett, L. and L. H. Summers, 2014, "Asiaphoria Meets Regression to the Mean," NBER Working Paper No. 20573 (Cambridge, Massachusetts: National Bureau of Economic Research.

# CEMAC—IMPLEMENTATION OF THE HARMONIZED PUBLIC FINANCIAL FRAMEWORK

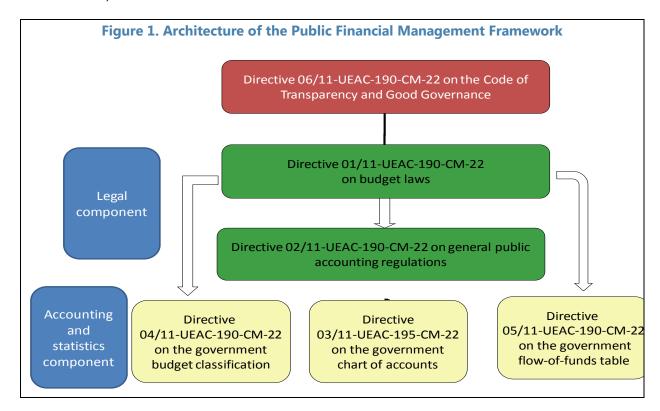
Under the treaty of March 16, 1994 creating the Central African Economic and Monetary Community (CEMAC) and Article 54 of the Convention governing the Central African Economic Union (UEAC), the CEMAC member states committed to strengthening regional integration through increased harmonization of their fiscal policies and legislation. This paper reviews the implementation of that commitment and the challenges of the harmonized public financial management framework.<sup>1</sup>

#### A. Introduction

- 1. The CEMAC directives on the harmonized public financial management framework (hereinafter "the directives") constitute the principal instrument for monitoring fiscal policies from the perspective of convergence of the member states' public policies. They contribute to the process of regional integration and improvement of the public financial management of the member states by more closely aligning them with the international standards.
- 2. The first harmonized public financial framework of 2008 quickly became obsolete and was updated in 2011. In 2008, five directives harmonizing the member states' legal, accounting, and government finance statistics framework were adopted by the CEMAC Council of Ministers (budget laws, general public accounting regulations, government budget classification, government chart of accounts, and government flow-of-funds table). However, the 2008 financial market crisis, the necessity of improving coordination of the member states' fiscal policies with the common monetary policy, the weaknesses observed in the directives, and the introduction of new public financial management methods led the CEMAC Council of Ministers to adopt a seven-pillar action plan to update the harmonized framework. The objective of this action plan was to increase the reliability of the multilateral surveillance exercised by the CEMAC Commission. The seven pillars were the following:
- rewriting of the directives;
- dissemination of the directives;
- capacity building for reform stakeholders;
- transposition of the directives into national legislation;
- monitoring and assessment;
- upgrading the member states' information systems;
- support for the implementation of reforms in the member states.

<sup>&</sup>lt;sup>1</sup> Prepared by Marie-Christine Uguen.

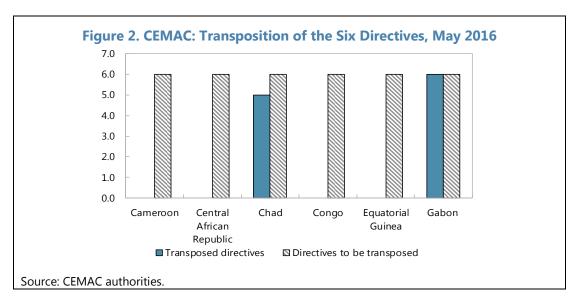
- 3. The harmonized framework updated in 2011 is aimed at strengthening regional integration and modernizing management. It ensures greater transparency in public financial governance in the member states, by aligning it with international rules and standards to facilitate multilateral surveillance by the Commission. In keeping with this objective, a sixth directive on the Code of Transparency and Good Governance was added to the initial framework.
- 4. The six directives updating the harmonized public financial framework of the CEMAC member states were approved on December 19, 2011, at the conclusion of a dynamic participatory process, led by experts from the member states as well as representatives of the Commission and the technical and financial partners. Figure 1 below details the structure of the harmonized public financial management framework, including a directive on the Code of Transparency and Good Government that serves as the general framework for all the other directives, a legal component composed of directives on budget laws and general public accounting regulations, and a technical component defining the accounting and statistical framework (government budget classification, government chart of accounts, and government flow-of-funds table).

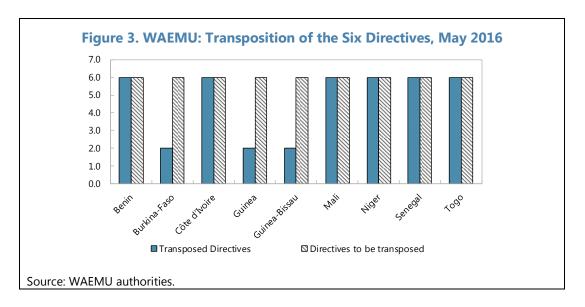


5. Initially, the national laws and regulations transposed from the directives were to be harmonized with the new framework by January 1, 2014. The transposition was to take place within the twenty-four months following their adoption, but with a gradual, differentiated implementation to take account of the capacities of the member states. Indeed, the implementation of certain innovative legal provisions (program budgeting, for example) could be postponed until 2021, or even 2023 in the case of the provisions on general accounting. Progress in the implementation of reforms was thus left to the judgment of the member states.

#### **B.** Status of the Transposition of the Directives

- 6. Given the lack of progress in transposing the directives at end-2013, the initial transposition deadline was extended twice by the CEMAC Council of Ministers. The first extension moved the transposition deadline to end-2014, and then a second extension was granted until end-2017 (CEMAC Council of Ministers meeting of December 22, 2014).
- 7. Despite these successive extensions, the rate of transposition of the directives remains low at 30 percent. This rate bears comparison with that of the West African Economic and Monetary Union (WAEMU), which is 83 percent under a harmonized framework adopted in 2009. To date, the directives have been transposed in all but two of the member states (Figures 2–3).





- **8. CEMAC states have progressed differently in transposing the directives** (Figure 4).
- Gabon and Chad have made the most progress in transposing the texts of the harmonized public financial framework into national legislation. Gabon has transposed all six directives and Chad has transposed five. Both Gabon and Chad have an organic law on the transposed budget law.
- Despite the security crisis that erupted in 2013, the Central African Republic has submitted five
  draft texts to the CEMAC Commission, including the draft organic law on the budget law and the
  draft law on the Code of Transparency and Good Governance.
- Equatorial Guinea recently started the task of transposition with the directives on the technical framework (budget classification).
- The organic law on the fiscal regime adopted by *Congo* in September 2012 has not been submitted for notice of compliance from CEMAC and is inconsistent with the Directive.<sup>2</sup>
- In 2007 Cameroon adopted a modernized law on the fiscal régime,<sup>3</sup> already containing some of the reforms called for in the 2011 Directive on the Budget Law (program budgeting, accrual basis accounting). Formal transposition of the directives began in 2015 with the preparation of the draft law amending the 2007 law on the fiscal regime, which is expected to be submitted shortly for notice of compliance from CEMAC. Nevertheless, Cameroon remains the only country that has not yet submitted a draft transposition to the CEMAC Commission.

#### **C.** Difficulties Transposing the Directives

- 9. The Commission's global approach to adoption of the directives on the harmonized public financial framework has not been followed by the member states. The CEMAC authorities decided on a global approach consisting of preparing and adopting the six 2011 directives as a consistent and indivisible whole. The member states have not chosen that approach for transposing the directives. No state has transposed the directives comprehensively or in a logical sequence of directives that must be transposed legislatively (transparency code and budget laws) and those that must be transposed in the form of regulations (government budget classification, general public accounting regulations, government chart of accounts, government flow-of-funds table).
- 10. The piecemeal approach to transposition leads to difficulties in terms of the consistency of the texts and diminishes the expected impact of the implementation of the reforms. The directives are transposed on a *case-by-case* basis, which results in numerous discrepancies and even contradictions, between the principles adopted in the directives and the transposed texts, or between the texts on the legal framework and the transposed implementing regulations of the technical framework. This situation hinders implementation of the planned reforms, particularly those aimed at transparency and improvement of financial governance.

<sup>&</sup>lt;sup>2</sup> Transposition: incorporation of directives harmonizing CEMAC's public financial management framework into a country member's legal framework. Compliant transposition: the draft national legislation has been assessed as compliant with CEMAC regional regulations by the CEMAC Commission.

<sup>&</sup>lt;sup>3</sup> In Cameroon, pursuant to the Constitution, the budget law is an ordinary law.

Fi	gure 4. CEM	AC: Transpos	ition of Direct	tives: Status at e	end-May 2010	6
Country Directive	Cameroon	Central African Republic	Congo	Gabon	Equatorial Guinea	Chad
Code of Transparency and Good Governance			Proposed merger with the fiscal transparency code	Law 021/2014 of January 30, 2015 on the Code of Transparency and Good Governance in Public Finance		
Budget Law		Submitted for	Organic Law 20-2012 of September 3, 2012	Organic Law 020/2014, of May 21, 2015		Organic Law 004/PR/2014 of February 18, 2014
General Public Accounting Regulations (RGCP)		compliance	Submitted for compliance	Decree RGCP° 0094/PR/MBCP of February 8, 2016		Decree RGCP 817/2015 – of April 1, 2015
Government Budget Classification (NBE)				Decree 0236/PR/MBCP of April 21, 2016	Submitted for compliance	Decree 319/PR/PM/ MFB/2016 of April 26, 2016
Government Chart of Accounts (PCE)				Decree PCE 0535/PR/MBCP of October 20, 201 5		Decree 321/PR/PM/ MFB/2016 of April 26, 2016
Government Flow-of- Funds Table (TOFE)				References in progress		Decree 320/PR/PM/ MFB/2016 of April 26, 2016
Legend						
Red orange	Texts submitte	ed for notice c	of compliance fr	lly in course of pre om CEMAC or in apliance from CEM	process of ado	ption as
Green			al law and in co			
Black white	Text transpos		al law but not ir	n compliance.		

- 11. Some member states still lack a plan or timetable for transposition of the directives. In general, ad hoc committees were formed in the CEMAC countries, bringing together those concerned with transposition of the various texts, most often under the authority of the unit piloting the program budgeting reform. These committees tackle the directives one by one and still do not have firm deadlines for submission of the draft texts.
- 12. Political support for the transposition of the harmonized public financial framework in the member states needs to be strengthened. The information sessions organized by the CEMAC Commission in 2013 and 2014 in all the member states (with the exception of Equatorial Guinea) with the support of technical and financial partners (particularly the World Bank, the International Monetary Fund, Central AFRITAC, and the UNDP Office in Dakar) failed to fully convince the national authorities that transposing the directives should be given priority. The units responsible for transposing the directives in most of the member states lack the authority needed to accomplish this task. Most of time, the fact that these are technical units prevents the adoption of a complete reform plan incorporating all aspects of the reform and all the institutional stakeholders involved. The reform plans developed by the member states often do not address all the reforms contained in the directives. The units are frequently created within directorates responsible for the budget, in order to prepare for the implementation of program budgeting. The reforms specified in the directives, however, require a larger context necessarily incorporating accounting and government finance statistics, in particular.
- 13. Ownership of the reforms called for in the directives is often insufficient, owing to confusion between the steering and implementation functions. Despite the above-mentioned dissemination and capacity building efforts, ownership of the reforms specified in the directives is lacking because of the resistance to change exhibited by the units responsible for implementing them.
- 14. The CEMAC Commission finds it difficult to provide the technical support needed for transposition of the directives. The CEMAC Public Finance Directorate created in 2013 within the Economic, Monetary, and Financial Policies Department is nonoperational. The move of the Commission's headquarters in 2013, the dispersion of its personnel, and the inadequacy of the operational resources needed to provide such support further complicate the implementation of technical support activities. Support from the European Union's Trade and Economic Integration Support Program (PACIE) is aimed at revitalizing implementation of the CEMAC Commission's plan of action for transposition of the directives. Since 2015, with other partners, capacity building efforts for national experts have focused in particular on the last three pillars of the Commission's action plan: adoption and implementation of the monitoring and assessment mechanism, upgrading the member states' information systems, and implementation of the directives.

#### D. Implementation of the Reforms Initiated by the Directives

**15.** Gabon has made the most progress in implementing the reforms initiated under the harmonized public financial framework. Since 2015, Gabon's budget is prepared and executed in "program mode." The concerned departments are currently finalizing the first budget review law (2015) in program mode, along with annexes related to performance. The work of preparing for the transition to accrual basis accounting has also begun. To make a success of this reform, Gabon

organized a team of approximately 40 well-trained individuals dedicated exclusively to implementing the program budgeting reform. The team was assigned to the new directorate responsible for assessing the performance of the fiscal policies formulated by the Directorate General of the Budget and Public Finance in January 2015, in order to continue implementation of the fiscal reform.

- **16. Despite not transposing the directives, Cameroon was the first member state to implement the program budgeting reform, in 2013.** This reform is based on the 2007 law on the fiscal regime, which set the deadline for the switch to program mode in 2013. On this same legal basis, major preparations are under way for the transition to accrual basis accounting. A fiscal reform directorate was created within the Directorate General of the Budget to monitor budgeting by program objective.
- 17. In Chad, insufficient capacities and the lack of an integrated public financial management system are obstacles to reform. Despite the existence of a project entitled Action Plan for the Modernization of Public Finances (PAMFIP) to marshal donor support for public finance reforms, the transposition of five of the six directives has not as yet led to significant progress in the area of reforms, the authorities' efforts notwithstanding. With the support of partners, particularly Central AFRITAC, these efforts are focused on the development of a new budget classification and meeting prerequisites in the field of public accounting.
- **18. In Congo, technical work on budgeting in program mode is well advanced.** However, the lack of strategic support, the inadequacy of the reform monitoring units, and the resistance to change exhibited by certain government agencies affected by the reform are slowing implementation of the 2012 Organic Law on the fiscal regime. In the field of public accounting and cash management, the technical prerequisites for implementing the reforms have not been met, indicating a continuing need for capacity building.
- **19. In the Central African** Republic, pending adoption of the transposed draft texts submitted to the CEMAC Commission, the priority is to rebuild the bases of public financial management in the areas of budget management, public accounting, and cash management.
- **20. In Equatorial Guinea, the current public financial management system is especially weak.** Consequently, transposition of the directives cannot truly begin until prior actions aimed at improving the system and capacity building in the field of budgetary and general accounting have been taken. Table 1 summarizes the degree of implementation of the reforms called for in the directives on the harmonized public financial framework.

#### E. Recommendations for Expediting the Transposition of the Directives

21. Expedite the member states' transposition of the directives into national law by promoting the global transposition approach. What this involves for each member state is preparing the program for the transposition of all the directives, including fixed deadlines, and monitoring their successful transposition and implementation in consultation with the CEMAC Commission.

Table 1. Implementation of the Reforms Called for in the Directives on the Harmonized Public Financial Framework						
Country	Cameroon	Central African Republic	Congo	Gabon	Equatorial Guinea	Chad
Existence of a permanent reform unit (a project or a Directorate)	х	х		х		х
Budget executed in program mode with performance framework	х			х		
Preparation for program budgeting			х			
Preparation for the transition to accrual basis accounting	х			х		
Budgetary and accounting prerequisites and fundamentals: financial control, budget execution, budget classification, chart of accounts, financial statements		х	х			Х
Budgetary and accounting capacity building		х	х		х	Х

#### 22. Strengthen the CEMAC monitoring mechanism, based on the experience of the WAEMU.

The first priority is to build the operational capacities of the Directorate of Public Finance, following the example of the WAEMU Commission. The CEMAC Commission should strengthen its relationships with the authorities of the member states, including at the political level, to expedite the implementation of public finance reforms and ensure transposition of the directives before the deadline of December 31, 2017. In particular, the monitoring and assessment mechanism approved by the member states in 2015 should be implemented in the latter half of 2016, and the sharing of experiences between CEMAC and the WAEMU regarding the implementation of public finance reforms should be increased.

23. Step up capacity building in the member states to facilitate the implementation of public finance reforms. The establishment or reinforcement of departments/units responsible for guiding these reforms is an essential condition for their implementation. Communication of the reform programs prepared by the member states to the CEMAC Commission would also allow for enhanced monitoring by the regional institution, including with regard to capacity building for national stakeholders.

## CEMAC—DEVELOPMENTS IN THE PUBLIC SECURITIES **MARKET**

In the wake of the sharp fall in oil prices since mid-2014, Economic and Monetary Union of Central Africa (CEMAC) countries' issuance of public securities have significantly increased. This paper describes recent developments in the securities market in CEMAC and the risk premium hierarchy among member countries. It suggests the possible market mispricing and highlights challenges. The paper makes recommendations to develop CEMAC's securities market.<sup>1</sup>

#### A. Background

- 1. The development of domestic public securities markets in sub-Saharan Africa (SSA) has been the subject of several studies. Sy (2007) focused on the primary market in the West African Economic and Monetary Union (WAEMU) and the determinants of prices of local-currency denominated public securities. Diouf and Boutin-Dufresne (2012) studied the determinants of interest rates in WAEMU, identified challenges and prospective reforms that could help make the market more dynamic, and assessed the potential systemic risks that it may pose to the region's banking system. Very few (if any) similar analyses have been made for CEMAC, which can be explained by the relatively recent establishment of this market (the first issuance of securities was done by Cameroon at the end of 2011) and limited data.
- A specific analysis for the CEMAC market is particularly relevant in the context of the 2. oil-price slump since mid-2014. The shock has had a massive impact on CEMAC's public finances, forcing its member countries to seek additional financing sources. Indeed, after a gradual development after late 2011, CEMAC countries' yearly issuances of public securities suddenly accelerated in 2015—that year issuances doubled, compared to the year before. A deeper and more liquid securities' market would enhance monetary policy through possible open market operations, help fill fiscal financing gaps by providing more resources, and develop financial sector stability by offering more low-risk assets with differing maturities.
- 3. This study is supported by the creation of a dedicated database, drawn from the statements of each issuance published on the website of the regional central bank (BEAC). This database contains the following information: the issuer country; the date of the issuance; maturity; number of primary dealers as bidders; amount announced by the Treasury; amount of bids; amount auctioned off; and the interest rates or prices (minimum and maximum proposed by the primary dealers; ceiling rate or maximum price accepted by the Treasury; and the weighted-average interest rate).

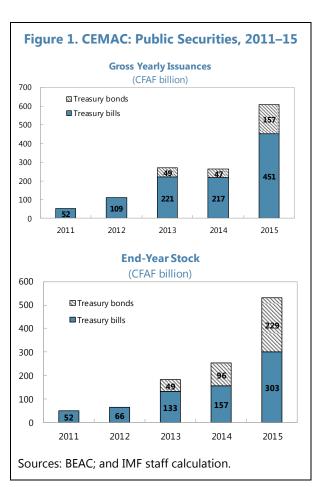
<sup>&</sup>lt;sup>1</sup> Prepared by Gabriel Leost.

#### **B. Securities Market Developments**

4. In the late 90s, the decision of a gradual phasing-out of direct central bank financing to governments in CEMAC paved the way for the development of the regional public debt market.

The BEAC's Board of Directors decided in 1999 to freeze its "statutory advances" to national Treasuries (i.e., the BEAC's overdraft facility for budget financing) and approved the establishment of a domestic market for the issuance of Treasury bills and bonds. However, because of a lack of political support, the implementation of the decision was delayed by almost ten years. In March 2008, the BEAC's Monetary Policy Committee decided to implement a transitional scheme providing for the coexistence of statutory advances (scheduled to be phased out) and the issuance of government securities.

5. **CEMAC** countries' public securities issuances have grown since 2011 and reached their highest level in 2015 (Figure 1). After the success of their first issuances in late 2011 (CFAF 50 billion), the Cameroonian authorities almost doubled their issuances of Treasury bills in 2012. The only other country in the regional market at that time was the Central African Republic (CAR), with CFAF 1.56 billion issued in 2011 and CFAF 9.4 billion in 2012. Gabon joined the market in 2013, issuing CFAF 99 billion. The first auctions of Treasury bonds occurred in 2013, both by Cameroon (CFAF 23.5 billion with a two year-maturity) and Gabon (CFAF 25 billion with a three-year maturity). Auctions of public securities stagnated in 2014 at around CFAF 265 billion, despite Chad's entry into the market. Finally, gross issuances more than doubled in 2015 compared to 2014, reaching CFAF 608 billion, in a difficult economic context characterized by a sharp fall in oil revenues.



## 6. The stock of auctioned public securities more than doubled in 2015 to reach

**CFAF 532 billion**. This was the result of longer maturities for Treasury bills issued in 2015 and increased placements of Treasury bonds. One-year Treasury bill issuances surged in 2015 to CFAF 196.5 billion. In addition, Chad was very active in the Treasury bond market. At the end of 2015, Treasury bonds represented 43 percent of the stock of auctioned public securities.

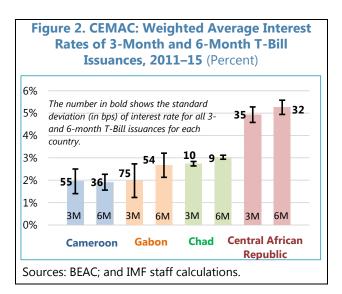
7. The objective of replacing BEAC direct financing by public securities remains a long-term endeavor. Until recently, the BEAC was taking steps to reduce budget financing and promote market-based financing in it stead. However, in early August 2015, in response to the oil-price shock faced by the region, statutory advances were reactivated with the approval of a 52.4 percent increase

in their ceilings. On top of this, the BEAC approved in late September 2015 additional "exceptional advances" of CFAF 140 billion to Chad, and in May 2016, CFAF 9.2 billion to the CAR.

**8.** The stock of statutory (and exceptional) advances is still almost 6 times larger than the stock of public securities. At the end of 2015, the stock of BEAC statutory and exceptional advances amounted to CFAF 1,984 billion relative to a stock of public securities of CFAF 330 billion. In fact, Cameroon is the only CEMAC country whose balance of statutory advances is lower than its stock of securities. Conversely, Congo and Equatorial Guinea, virtually absent from the securities market (only two issuances by Equatorial Guinea), are the biggest users of BEAC's statutory advances.<sup>2</sup>

#### C. Risk Premium Hierarchy and Potential Market Mispricing

- 9. Risk premia for 3- and 6-month Treasury bills show a discrimination among CEMAC countries. There were a total of 142 Treasury bill issuances in the regional market between November 2011 and end-2015, and more than half of them (76) were undertaken by Cameroon. Using the interest rates obtained by Cameroon (the most active country in the regional market and the one enjoying the lowest interest rates) as benchmarks and comparing issuances undertaken at identical or close dates,<sup>3</sup> the following observations can be made (Figure 2):
- Gabon is the second "best" risk among CEMAC countries, with interest rates
   30-40 basis points (bps) higher than Cameroon, but with a large standard deviation.
- Interest rates for Chad are more than 100 bps higher than for Cameroon on 3- and 6-month Treasury bills, but with a low variance among issuances, which could be explained by the lumping of similar maturity issuances.
- The CAR faces the highest interest rates, at around 5 percent a year for 3-monthTreasury bills and slightly more than 5 percent for 6-monthTreasury bills.



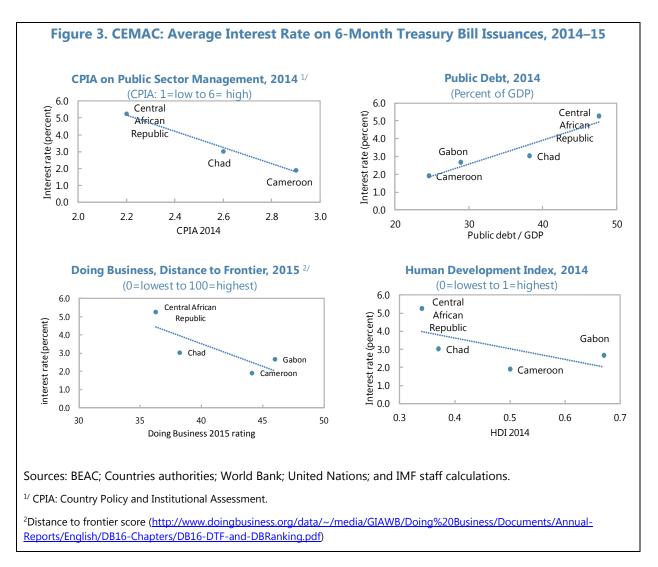
10. Interest rates in CEMAC appear to be positively linked with governance and public management ratings, as well as public debt indicators (Figure 3). Although CEMAC countries' securities issuances are not rated by the main international rating agencies, some trade credit insurers provide a country risk classification, with better ratings for Cameroon and Gabon than for

(continued)

<sup>&</sup>lt;sup>2</sup> The Republic of the Congo has not yet issued Treasury paper in the regional market.

<sup>&</sup>lt;sup>3</sup> C. Soltani and B. Debergh found a seasonal effect in interest rates, with a significant increase in September-October when banks would be willing to buy securities only at higher interest rates in order to improve their annual profit figures. In this study, issuances of Treasury bills with the same maturity are comparable when auction dates do not differ by more than one month.

Chad and the CAR.<sup>4</sup> In the same vein, the World Bank's Doing Business indicators show a better rating for Cameroon and Gabon. Public debt indicators follow along the same lines, as the ratio of public debt over GDP is significantly lower for Cameroon and Gabon than for Chad and the CAR.



11. The risk premium hierarchy has been less obvious on 1-year Treasury bills. Cameroon had long been the only CEMAC country with regular issuances of one year-Treasury bills (Annex 2). The first 1-year issuance by Gabon was conducted in April 2015 and Chad followed with five such issuances between September and December 2015. While Cameroon has benefitted from lower interest rates on average, there is less clarity on risk premium hierarchy among CEMAC countries for this type of maturity. For instance, the 1-year Treasury bills issued by Gabon in the last quarter of 2015 had an interest rate of 4 percent on average, significantly higher than similar issuances by Chad (five issuances with an average interest rate of 3.4 percent). Even more surprising, the last auction of the year for

<sup>&</sup>lt;sup>4</sup> For instance, the Hermes-Euler rating for Cameroon and Gabon is at a "significant risk" level, while the CAR and Chad are at "high risk" level. Cameroon and Gabon have also a better risk rating than the CAR and Chad in the EKF (Denmark's export credit agency) classification.

Cameroon and Chad were done the same day (on December 23, 2015), with the same amount auctioned (CFAF 8.5 billion), and for the first time, the interest rate was higher for Cameroon (3.9 percent) than for Chad (3.5 percent). Similarly, the first ever issuance by Equatorial Guinea in September 2015 was done at an interest rate of only 1.36 percent (lower than any issuance by Cameroon for any maturity).

- **12. Although limited activity makes comparisons difficult, unusual interest rate dynamics suggest the presence of possible market mispricing**. Only Chad and Gabon had Treasury bond issuances in 2015—the interest rate on Gabon's 2-year Treasury bonds (4.6 percent) was higher than the interest rate on Chad's 5-year Treasury bonds (4.1 percent) resulting in an inversion of the yield curve. One potential explanation could be that, despite the auction mechanism, the limited number of primary dealers (*spécialistes des valeurs du Trésor*) involved (only one or two dealers making a bid) favors a prior agreement between the Treasury and the dealers involved, as in the case of syndication, resulting in possible market mispricing.
- 13. More generally, the low interest rates obtained by CEMAC countries in their auctions indicate possible mispricing of securities, which could be an obstacle to market development. Governments do not seem ready to pay significantly more than the current relatively low rates (currently the tender rate—taux d'intérêt des appels d'offres—is at 2.45 percent a year), and thus accept only low cut-off rates in their auctions. A comparison with the few international bond issuances made by Cameroon and Gabon reinforces the sense that interest rates on CEMAC public securities are unusually low. The mispricing of CEMAC countries' securities is an obstacle to market development, as it discourages the emergence of a secondary market.

#### D. Challenges for the Development of the CEMAC Public Securities Market

#### A comparison with the WAEMU market

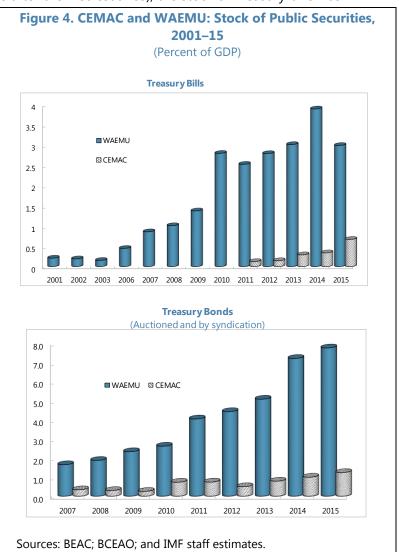
14. A comparison with the WAEMU public securities' market is useful to identify challenges and make recommendations for the development of CEMAC's market. Although both markets have quite similar legal and regulatory frameworks, WAEMU's market development significantly accelerated in the mid-2000s.

<sup>&</sup>lt;sup>5</sup> The interest rate on a 10-year Eurobond issuance by Gabon in June 2015 reached 6.95 percent, while Cameroon obtained 9.75 percent in its 10-year Eurobond issuance in November 2015.

15. While the stock of Treasury bills is five times larger in WAEMU than in CEMAC, the progression of the Treasury bills' market in the latter is comparable to that of the early years of the WAEMU market (Figure 4). At end-2015, the stock of Treasury bills in CEMAC was equivalent to 0.6 percent of GDP. This is significantly below the level in WAEMU (3 percent of GDP). That said, at the end of 2005 (more than four years after the first issuance), the stock of Treasury bills was

comparable in WAEMU (0.6 percent of GDP). The WAEMU market took off only in the second half of the 2000s, and experienced a great leap forward in 2010–11, paradoxically as a result of the political crisis in Ivory Coast.<sup>6</sup>

The Treasury bond 16. auction market remains underdeveloped in CEMAC compared to WAEMU. Chad, and to a lesser degree, Gabon, are the only two countries in CEMAC to have used the Treasury bond auction market. Cameroon favors Treasury bill issuances, having resorted to the auction of Treasury bonds in only three occasions, the last time in August 2014, for a cumulative amount of CFAF 33.5 billion. However, Cameroon has also issued a total amount of CFAF 430 billion in regional bonds since 2001, with three issuances through syndication. Even taking into account the issuance of regional bonds by syndication,<sup>7</sup>



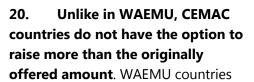
the stock of Treasury bonds in CEMAC stood at 1.2 percent of GDP at end-2015, compared to 7.7 percent of GDP in WAEMU.

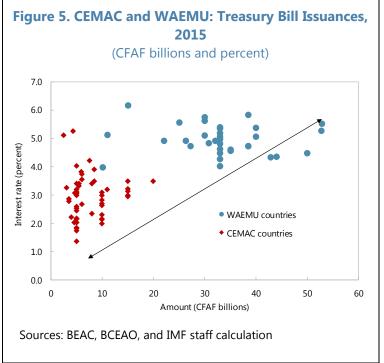
<sup>&</sup>lt;sup>6</sup> Although regular auctions of Treasury securities were no longer possible in 2010 because of uncertainty on who constituted the legal government, the BCEAO agreed roll over maturing Ivoirian Treasury bills with maturities up to one year automatically. Finally, a stock of more than CFAF 600 billion was converted into new Treasury bills and bonds, with longer maturities, in November 2011 and March 2012.

<sup>&</sup>lt;sup>7</sup> CFAF 100 billion by Gabon in 2007 (6-year maturity); CFAF 200 billion by Cameroon in 2010 (5-year maturity); CFAF 107.6 billion by Chad in 2011 (5-year maturity); CFAF 80 billion by Cameroon and CFAF 85 billion by Chad in 2013 (both with 5-year maturities); CFAF 150 billion by Cameroon in 2014 (5-year maturity); and CFAF 84 billion by Gabon in 2015 (5-year maturity).

- 17. A larger banking system with more appetite for government securities is an explanation for a more developed market in WAEMU. In terms of assets, WAEMU's banking sector is twice as large as that of CEMAC. In addition, the stock of public securities held by banks established in WAEMU represents about 8 percent of their combined assets against less than 2 percent in CEMAC. This could be partly explained by a more flexible regulation in the WAEMU market that makes government securities a risk-free alternative to the accumulation of unremunerated reserves at the central bank.
- **18.** Auctions of public securities by CEMAC countries are generally oversubscribed, but at significantly lower ratios than in WAEMU. For Treasury bill issuances in 2015, WAEMU countries recorded an average coverage ratio of 1.94, compared to 1.5 in CEMAC. Furthermore, in 11 of 64 auctions by CEMAC countries, the bids were lower than the amounts offered by Treasuries.
- 19. Despite lower coverage ratios and higher country risk rankings, Treasury bill yields in CEMAC were significantly lower in 2015 than in WAEMU (Figure 5). The CAR's issuances carried

similar interest rate than issuances by Senegal and Côte d'Ivoire. This somewhat paradoxical result would suggest a possible mispricing in CEMAC securities, but also differences in terms of auction strategies, leading to lower cut-off prices in CEMAC. On average, for each Treasury bill issuance in 2015, a CEMAC country raised only CFAF 7.2 billion at an annual interest rate of around 2.7 percent, while a WAEMU country raised CFAF 32.5 billion at an interest rate of 5 percent.

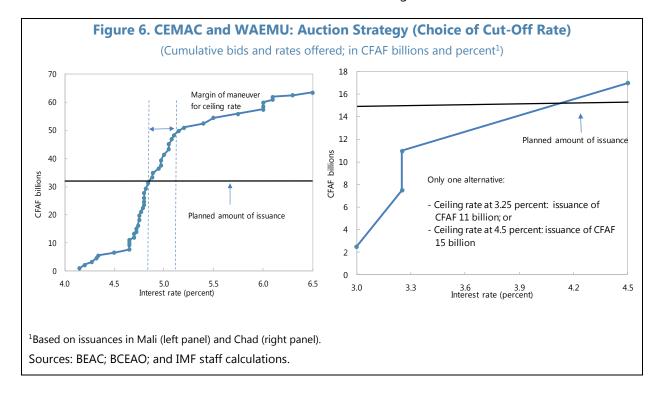




generally take the opportunity of bids exceeding the planned amount of the issuance to increase the amounts raised. In 2015, they did that in 24 of their 34 issuances, placing on average 10 percent more than their initial offers. This option is not allowed under the regulatory framework of the CEMAC public debt market. Conversely, national Treasuries in CEMAC have sometimes decided to allocate a lower amount than announced (5 times in 2015). This might be motivated by a desire to create excess demand for their issuances in order to obtain more favorable terms in subsequent auctions.

21. In addition, a limited number of buyers and potential bids seems to constrain CEMAC countries' auction strategies (Figure 6). On average, CEMAC countries have received only

5.3 different bids for their Treasury bill issuances in 2015, against 47.5 for WAEMU countries. Even when demand from primary dealers exceeds the initial auctioned amounts, the room for maneuver of CEMAC Treasuries is severely restricted, especially regarding decisions on the cut-off rates. National Treasuries are often limited to a choice of "all or nothing," while Treasuries in WAEMU countries can refine cut-off rates with limited risks of distorting markets.



#### Challenges ahead8

- 22. Promoting a market that better reflects the reality of risks is necessary to ensure its development. As already mentioned, one of the main dysfunctions of CEMAC's public securities' market is the mispricing of securities auctioned. It discourages new investors, other than current primary dealers, to enter the market and hampers the development of a secondary market. Improvements in terms of communication, planning, execution of auctions, and debt management would help develop the market.
- 23. Retail investors, including non-residents, need to be attracted to CEMAC's securities' market. There are no restrictions for retail investors, including non-resident investors, to purchase CEMAC government securities. The primary dealers have an exclusive right to participate in Treasury bill or bond auctions, but they have the obligation, at the request of any investor, to buy and sell public securities on behalf of the latter. In the same way, non-resident banks have the ability to transmit their orders to primary dealers. However, the dealers participate in the regional securities market almost entirely for themselves, and although other investors can purchase securities through

56

<sup>8</sup> Most of the recommendations presented in this section are based on technical assistance reports by AFRITAC Centre, the IMF's regional technical assistance center in Central Africa.

them, in practice this happens infrequently. At the end of 2015, 95 percent of the Treasury bills issued in CEMAC (92 percent for Chad) were owned by primary dealers. The situation is similar for Treasury bonds, with an 88 percent ownership by primary dealers.

- 24. The secondary market for government securities needs to be developed. Treasury bills and bonds are dematerialized and are governed by a convention between the BEAC and primary dealers. The latter have the obligation to foster the secondary market by displaying at their counters the purchase and sale prices of government securities. However, dealers typically consider the government securities as an investment option for themselves or as a refinancing instrument (government securities are accepted by the BEAC for rediscount operations). More importantly, the mispricing may hamper the development of the secondary market, because dealers could incur losses if they had to sell the bills and bonds at higher "market-clearing" prices. At this stage, the secondary market is extremely limited, with only about twenty transactions on bills and bonds recorded between 2011 and 2014. The secondary market for Treasury bonds issued by syndication is slightly more active. For instance, according to AFRITAC Centre, 77 secondary transactions on Cameroonian bonds were recorded between 2011 and 2014, which represents on average 11 percent of securities sold. The secondary market should also benefit from the planned implementation in 2016 of the legal framework for the "repo" market (sale and repurchase agreements).
- **25.** The unification of the Treasury bond issuances through auctions and by syndication could help stimulate the market. Currently, Treasury bonds issued by auction are exchanged overthe-counter (OTC), while bonds issued by syndication are traded on the Douala and Libreville stock exchanges. Eliminating this fragmentation, including encouraging domestic syndication could be beneficial. For instance, an agent could be designated by the authorities as leader to seeks to involve other banks in the operation through the auction market. This would require a modification of Article 9 of the BEAC regulation on public securities, as the price of the issuance with the agent will need to be determined for a domestic syndication.
- **26. The calendars for planned issuances should be better respected.** As specified in the legal and regulatory framework of the CEMAC public securities market, national Treasuries have to publish annual and quarterly indicative calendars of issuances. Although this requirement is generally met, it is important to better respect these calendars to enhance the reliability of issuances among market participants. In fact, auctions are frequently postponed, while others are undertaken without a previous announcement.
- **27. Communication before and after an auction should be improved**. The statements published two or three days before an auction are typically insufficient, mentioning only the nature of the securities (bills or bonds), the maturity, and the desired amount. WAEMU countries are at a more advanced stage, with the pre-auction statement being accompanied by a pre-auction note including more comprehensive information (results of the previous auctions, planned auctions, amounts that will mature in the coming weeks, etc.), and often preceded (one or two weeks before the auction) by an information note on the issuance, the issuer, and the economic and financial context. All this information is published on the website of the *UEMOA-Titres* agency, while in

CEMAC, the Unit for the Settlement and Conservation of Securities (*Cellule de règlement et de conservation des titres*) does not have its own website.

#### 28. Good debt management practices should also help in developing the securities market.

It is important that governments respect their planned issuance calendars and disclose comprehensive and timely information to investors. Furthermore, enhanced coordination can help avoid unnecessary competition among CEMAC countries, for instance by not issuing securities with identical maturities on the same day. More generally, sound debt management strategies should also help reassure investors about the government's ability to repay their securities and facilitate the rollover of maturing debt.

#### 29. Improved debt management should include a clearer decision-making process.

Decisions on cut-off prices, through the "ceiling rate" in the case of a Treasury bills or "price limits" in the case of Treasury bonds, directly impact the amounts raised. In theory, in order to avoid market distortions, and as long as the bids are sufficient, the issuer should accept all the best offers by dealers up to the announced amount of the issuance, regardless of the proposed interest rates or prices. In reality, the national Treasuries may decide to auction a lower or higher amount than announced. In particular, when the bids exceed the planned amount by a large margin, it may be justified to get additional financing at favorable conditions, but the rational for this decision should be explained in the post-issuance statement, to avoid affecting dealers' expectations for future issuances.

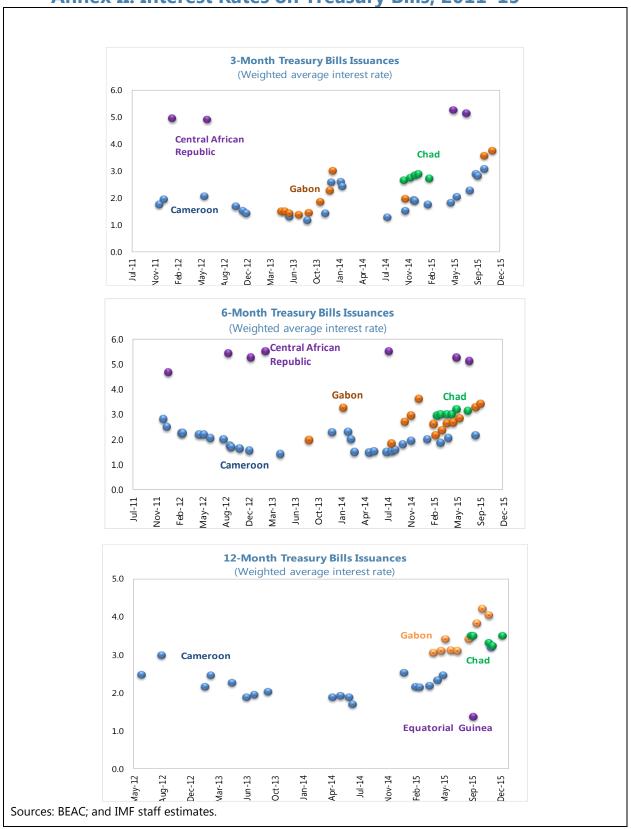
## **Annex I. Treasury Bill Issuances, 2011–15**

(CFAF billions)

	2011	2012	2013	2014	2015
Gross					
Cameroon	50	100	119	145	133.7
Gabon	0	0	99	42.4	132
Central African Rep.	1.56	9.4	2.5	2.5	14.8
Chad	0	0	0	27.5	156
<b>Equatorial Guinea</b>	0	0	0	0	15
TOTAL	51.56	109.4	220.5	217.4	451.4
Due to mature					
Cameroon	0	90	80	149	140.5
Gabon	0	0	65	44	76.4
Central African Rep.	0	5.21	8.25	0	9.3
Chad	0	0	0	0	104.5
Equatorial Guinea	0	0	0	0	0
TOTAL	0	95.21	153.25	193	330.7
Net					
Cameroon	50	10	39	-4	-6.8
Gabon	0	0	34	-1.6	55.6
Central African Rep.	1.56	4.19	-5.75	2.5	5.5
Chad	0	0	0	27.5	51.5
Equatorial Guinea	0	0	0	0	15

Sources: BEAC, and IMF staff calculations.

#### **Annex II. Interest Rates on Treasury Bills, 2011–15**



#### References

- Jakob Christensen, "Domestic Debt Markets in Sub-Saharan Africa" IMF working paper, WP/04/46.
- Amadou N. R. Sy, "Local Currency Debt Markets in the West African Economic and Monetary Union" *IMF working paper, WP/07/256*.
- Jean-Claude Brou, « Étude de cas : le marché des bons du trésor dans l'UEMOA » Séminaire : Avancer la finance africaine au XXIe siècle Tunis, March 2008.
- Bruno Cabrillac and Emmanuel Rocher, "Government Debt Markets in African Developing Countries: Recent Developments and Main Challenges," Bulletin de la Banque de France n° 176 Second quarter of 2009.
- COSUMAF (Commission de surveillance du marché financier de l'Afrique Centrale), « Feuille de route en vue de dynamiser le Marché Financier en zone CEMAC », September 2009.
- O. Janet Adelegan and Bozena Radzewicz-Bak, "What Determines Bond Market Development in sub-Saharan Africa?" *IMF working paper, WP/09/213*.
- African Development Bank, Guide des marchés obligataires africains, May 2010 Banque de France, 2011 Annual Report for the franc zone, Box 6 on government securities issuance mechanism in the CEMAC.
- Obert Nyawata, "Treasury Bills and/or Central Bank Bills for Absorbing Surplus Liquidity: The Main Considerations" *IMF working paper, WP/12/40*.
- Mame Astou Diouf and François Boutin-Dufresne, "Financing Growth in the WAEMU. Through the Regional Securities Market: Past Successes and Current Challenges » *IMF working paper*, *WP/12/249*.
- Omar Dissou and Richard Baudouin, report on Technical Assistance mission n. 13–228, October 2013 Simon Gray and Runchana Pongsaparn, "Issuance of Central Bank Securities: International Experiences and Guidelines" *IMF working paper, WP/15/106*.
- Chaker Soltani and Bruno Debergh, "Compte rendu de la mission d'appui au développement d'une courbe des taux pour le marché régional des titres d'Etat de la zone CEMAC, May 2015.
- BEAC (Banque des Etats de l'Afrique Centrale) Marché des titres publics <a href="https://www.beac.int/index.php/marche-des-titres-publics/presentation-generale">https://www.beac.int/index.php/marche-des-titres-publics/presentation-generale</a>
- BCEAO (Banque Centrale des Etats de l'Afrique de l'Ouest) Rapports annuels et Bulletins mensuels de statistiques monétaires et financières.
- Agence UMOA Titres <a href="http://www.umoatitres.org/en">http://www.umoatitres.org/en</a>